



PSI
PSI FOUNDATION

2009
ANNUAL REPORT

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 four 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 Executive Director
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
website: 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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FOUNDATION**

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

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K.J. Armitage, M.D., *Vice-President*
J. Kvirring, *Executive Director*

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KPMG_{LLP}

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G.A. Vanderburgh, M.D.
Family Physician Shelburne

*resigned

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Samuel Moore, B.A. (Hon.) M.A., *Grants Officer*
Shamim Pirani, *Executive Assistant*
Maureen Rutherford, *Accountant*

*special Committee members

** resigned during 2009

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| SOCIETY | NAME |
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| Oxford County Medical Society | J. Szasz, M.D. |
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| Renfrew County Medical Society | D. Park, M.D. |
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| St. Thomas & Elgin Medical Society | A.M. Ballard, M.D. |
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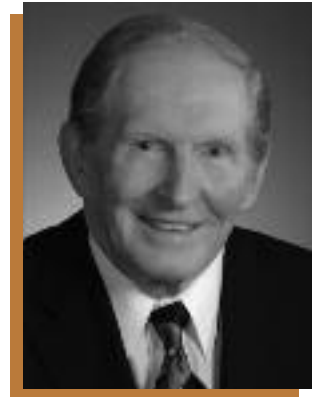
M.L. Brown, C.F.A.
 T. Dalinda, B.Comm., C.A.*
 J.H. Duff, M.D.
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 W.J. King, M.D.

*resigned

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In last year's report I noted that the recession affected PSI much less than other Foundations. Moreover, our loss at just over 14% was about half as much as that lost by the endowment funds of the major Canadian Universities. Accepting the advice of our Finance Committee we maintained our usual funding levels throughout the recession.

For 2010 we have increased funding to 4.4 million dollars. Such is not the case with other Foundations. Several have suspended new grants and others scaled back to fund on a limited basis. We suspected that such cuts would cause more investigators to apply to PSI and this appears to be happening. For the March 2010 competition we reviewed over 50 grant applications and there are over 80 applications for funding at this June's competition, a record number. Regrettably, we were able to fund only 14% of applications at the March competition and this percentage will be much smaller in the June competition. This huge number of applications will clearly be a strain on members of the Grants Committee. Moreover, funding rates between 10 and 15% mean that many excellent applications will not receive funding. In the long run this discourages the best scientists from applying to PSI.

In 2009, Dr. McMurtry presented some 15 recommendations from the External Review Committee. The Board has thoroughly considered each recommendation and accepted or implemented nine. Five are accepted and in the process of being implemented.

The Board rejected one, the recommendation that the Grants Committee should be independent of the Board i.e., that its members should not be Directors. It is true that this arrangement exists for most charitable foundations. However, unlike PSI, the major function for the Boards of other Foundations is to raise money. Never having this activity our Board has always been intimately involved in the granting process. The Board weighed carefully the pros and cons of this recommendation and concluded that the current long standing policy will best enable it to carry out the mission of the Foundation. In reaching this decision, the Board accepted the views of several delegates who expressed concern about an independent Grants Committee.

The composition of the Board changed considerably during 2009. We accepted the resignations of Drs. Chiu and Guest, Ms. Marcia Lewis-Brown and Mr. Tom Dalinda. Each made significant contributions to the work of the Finance Committee and the Board. Dr. Guest also served for a time on the Grants Committee. The Nominating Committee's proposed slate of new Board members will change and refresh the composition of the Board. Further appointments will be made to strengthen the Board in achieving the recommendations of the External Review Committee.

The Foundation reached a significant landmark during my third and final year as President. Total grant funding since inception of the Foundation has surpassed 100 million dollars. The Founding physicians would surely be proud of this achievement. I cannot close my remarks without thanking all of the dedicated people who serve with me on the Board. I am sure they will all agree with me when I say that although the work is at times hard and the hours of commitment long, it is a privilege to help guide this unique Foundation in its mission of funding clinically relevant research, ultimately to improve the health care and health of the people of Ontario.

A handwritten signature in black ink, appearing to read "J.H. Duff". The signature is stylized and cursive.

J.H. Duff, M.D. – President

March 12, 2010

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 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 SCHOLARSHIP

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION - SCHOLARSHIP FOR INNOVATIVE HEALTH SYSTEMS RESEARCH

The intent of this award is to support an academic clinician who has a special interest in innovative health systems research. One award may be made each year providing a suitable candidate is found from among the nominees, and candidates are to be nominated by the universities (two from each of the six Ontario medical schools). An update to this program will be announced in 2010.

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 relatively more funding opportunities available through other funding 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 the above two 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, previously known as Community-Based Research, 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 or Grants Officer 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 – 2009

The Foundation reviewed 205 applications during 2009, having a total value of \$17,288,762. In the prior year, 191 applications with a total value of \$15,243,764, were reviewed.

The Foundation started 2009 with grant commitments of \$3,385,450 and during the year a further \$4,624,550 was approved in grants and programs.

The amount the Foundation paid on grants during 2009 was \$3,722,482 taking into account grant refunds of \$14,168 and a withdrawal by a grant recipient of a grant approved in 2008 in the amount of \$40,000.

At the end of the year commitments for future years stood at \$4,233,350, of which \$3,252,950 is payable in 2010.

HEALTH EDUCATION

EDUCATIONAL FELLOWSHIPS FOR PRACTISING PHYSICIANS

During 2009, \$8,950 was awarded to provide fellowship support to two practising physicians as below:

| PHYSICIAN | SUBJECT |
|------------------------------|---|
| Dr. A. Siren, Thunder Bay | Superovulation and intrauterine insemination techniques |
| Dr. G. Cheng, St. Catharines | Breast MR with guided biopsy |

RESIDENT RESEARCH PRIZES

The program known as “The P.S.I.F. Resident Research Prizes for Excellence in Research Papers” was established by the Foundation in 1987, and it continues to be an important aspect of the Foundation’s granting interests.

The program is reviewed by the Foundation every three years, and in 2008 funds were again set aside for the continuation of the prizes for another three years. In 2009, the board approved the allocation of \$30,000 for the addition of Northern Ontario Medical School to participate in the program. Prizes of \$2,000 each are awarded annually to up to five residents from each of the medical schools in the province, with the winning papers selected by a committee at each medical school.

SPECIAL SCHOLARSHIP

The P.S.I. Foundation Scholarship for Innovative Health Systems Research was not awarded in 2009. The program will be re-launched in 2010.

HEALTH SYSTEMS RESEARCH

In 2009, there was one grant awarded under this category which is highlighted below.

COST EFFECTIVENESS OF WEB-BASED FOLLOW-UP FOLLOWING TOTAL JOINT ARTHROPLASTY

Complications following total joint arthroplasty are rare, the majority of follow-up visits are routine. Technology now exists to conduct annual research follow-up assessments without having to physically see the patient.

In this study being carried out by Dr. Douglas Naudie and his co-investigators at the University of Western Ontario, the cost-effectiveness of web-based follow-up assessments compared to standard in-clinic follow-ups will be investigated. The study will also include the assessment of patient satisfaction, preference and the validity of the web-based follow-up assessments.

Online assessment could significantly decrease wait times in orthopaedic clinics, as well as increase availability for operating time and new consultations. This approach could also potentially reduce patient burden by decreasing travel distances, financial burden and time requirements.

RESEARCH BY COMMUNITY PHYSICIANS

In 2009, there were no grants awarded under this program.

MEDICAL EDUCATION RESEARCH

In 2009, 5 grants were awarded in this category for a total of \$211,200 and two of the projects funded are highlighted below:

VALIDATING THE EFFICACY OF A TASK SPECIFIC CHECKLIST VERSUS A GLOBAL RATING SCALE IN EVALUATING THE PROFICIENCY OF ULTRASOUND GUIDED SUPRACLAVICULAR NERVE BLOCKS IN OPERATORS AT VARIOUS LEVELS OF TRAINING

Residency training programs recognize the importance of having objective tools for assessing the technical skills of their trainees in order to determine competence, standards and final certification. Log books are widely feasible but they depend on resident data entry and because data entry is not audited and there is no supervision during procedure, this method of assessment does not reliably evaluate competency. Other methods of evaluation involve direct observation with and without criteria which may include a task specific checklist or a global rating scale. Direct observation without criteria is superior to log books but is dependent solely on the subjective opinion of the observer without explicit criteria. Direct observation with criteria has shown to have good inter-rater reliability and is useful in formal evaluations; however, the checklists and global rating scales must have established validity. To date no study exists which evaluates the validity of a checklist for assessing competency of ultrasound guided peripheral nerve blocks.

Ultrasound guided peripheral nerve blocks are increasingly becoming standard practice. No tool exists for evaluating the proficiency of the operator. The aim of this study by Dr. Megan Hayter and her supervisor Dr. Vincent Chan at Toronto Western Hospital is to establish the validity of a task specific check list for ultrasound guided peripheral nerve blocks by using anesthesiologists at varying levels of training.

VALIDATION OF REAL-TIME, INTRA-OPERATIVE, SURGICAL COMPETENCE (RISC) ASSESSMENTS LINKED TO PATIENT OUTCOMES

Lessons learned from this research lead by Dr. E. Grober at Mount Sinai Hospital will contribute significantly towards the objective assessment of technical skill in real operative settings, on real patients, based on clinically-relevant patient outcomes. It is intended that similar methodology can be applied to develop RISC assessments for a variety of surgical procedures and disease states.

In the study, cystoscopic trans-urethral resection of bladder tumors (TURBT) - the direct visual inspection of the inside of the bladder using a telescope with simultaneous removal of bladder tumors will take place using a heated knife/resection loop.

Subjects will include: 1) surgeons performing TURBTs and 2) patients identified at cystoscopy (internal bladder inspection) to have a bladder tumor requiring resection. The study intervention will be live TURBTs which will be recorded on video and evaluated in a blinded fashion by expert surgeons as to the overall technical quality of the tumor resection using the RISC assessment. Subjects will be followed for 18-months for signs of disease recurrence or progression according to current standards of care. Bladder tumor recurrence (primary outcome), disease progression, operative complications and need for further treatment will be correlated with RISC scores.

CLINICAL RESEARCH

The total approved under the category of clinical research during 2009 was \$4,272,900 and some of the projects supported in this category are highlighted below.

PE METRICS: PULMONARY EMBOLISM: METHODOLOGY, EPIDEMIOLOGY & TREATMENT IN CRITICAL CARE STUDY

Blood clots developing because of inactivity or serious illness may travel to the lungs. Clots in the lung are extremely dangerous and the leading cause of hospital death. In a seriously ill patient, symptoms of a lung clot vary depending on size, location, and a patient's overall health. When a patient is on life support, lung clots are often unrecognized because many signs and symptoms of lung clots being confused with other conditions. Tests to diagnose lung clots are uncommonly done in a seriously ill patient, and if performed, the test results are often unclear. Lung clots increase the time on life support, increase the hospital stay, and increase the risk of death. Dr. L. McIntyre and Dr. D.J. Cook of McMaster University have received a grant to support their work on studying lung clots during serious illness, and will focus on major problems that previously have not been studied: the proper diagnosis, the accuracy of doctors' decision-making, risk factors and consequences, and how drugs and devices help to treat lung clots. This research will take advantage of an ongoing international study on clot prevention; and will therefore quickly and cost-effectively create new knowledge about this life-threatening problem so that it can be better identified, prevented and treated.

SURGICAL PERIPHERAL NERVE DECOMPRESSION FOR THE TREATMENT OF DIABETIC NEUROPATHY IN THE FOOT

Diabetic neuropathy is a condition that develops in many persons suffering from diabetes mellitus. This condition causes burning pain and decreased feeling of the foot. It is a major contributor to the development of foot ulcers in the diabetic, which not uncommonly lead to prolonged medical treatments and amputations. It is also a major cause of pain and disability in diabetics, and is a large economic burden to the health care system. Treatment options to date are limited and often ineffective.

In the recent years, there have been several reports claiming an effective surgical treatment for this condition. This consists of decompressing the major lower limb nerves, similar to carpal tunnel release surgery in the hand. However, these reports have been of low quality, and the treatment remains unproven. This study by Dr. Timothy Best of the Northern Ontario School of Medicine sets out to test if this surgery is an effective treatment for diabetic neuropathy of the foot; if positive, then provision of the treatment will not only relieve much patient suffering, but will relieve the health care system of some of the current financial burden of caring for patients with this condition. If negative, the study will also save health care resources in discouraging surgeons from continuing to offer this treatment to affected patients.

CANDIDA IN RESPIRATORY TRACT SECRETIONS OF CRITICALLY ILL PATIENTS AND EFFICACY OF TREATMENT (THE CANTREAT STUDY): A PROSPECTIVE, RANDOMIZED, DOUBLE BLIND, PLACEBO CONTROLLED PILOT STUDY

Pneumonia that arises in critically ill patients on a mechanical ventilator is termed ventilator associated pneumonia (VAP). VAP can be life threatening and is at times fatal. In spite of its frequent occurrence in critically ill patients, optimal therapy for VAP is not known. In this regard, during investigations for the presence of VAP, *Candida* spp. or yeast are frequently grown when the sputum from patients suspected of VAP is cultured. Until recently, the presence of yeast was thought to be inconsequential and not treated.

However, research conducted by Dr. John Muscedere and colleagues of Kingston General Hospital has revealed that the presence of *Candida* spp. in the sputum is associated with worsened outcomes (including prolonged ICU and hospital length of stay and higher mortality). It is unknown if *Candida* is responsible or is just associated with the worsened outcomes. The only way to determine this is to conduct a randomized controlled treatment trial. In the first step towards the full trial, Dr. Muscedere has received a grant to conduct a pilot study to optimize study procedures, ascertain the feasibility of conducting a large study and to obtain further information that will be useful in a future trial and the study will include participation of six tertiary Intensive Care Units in Ontario.

A STUDY TO DERIVE A CLINICAL DECISION RULE FOR PREDICTING SERIOUS OUTCOMES IN EMERGENCY DEPARTMENT SYNCOPE PATIENTS OCCURRING WITHIN 30-DAYS AFTER DISCHARGE FROM THE EMERGENCY DEPARTMENT – PHASE 1 DERIVATION

Predicting those at risk for serious outcomes in syncope (fainting) patients is one of the most difficult tasks faced by emergency physicians. There are a few risk stratification instruments available in the literature and among them only the San Francisco Syncope Rule has been prospectively derived, prospectively validated, included all short-term serious outcomes and widely validated externally. Co-Principal Investigators Dr. Vankatesh Thiruganasambandamoorthy and Dr. Ian Stiell of the University of Ottawa received funding from the Foundation to carry out their proposed study to prospectively develop a highly accurate clinical decision rule to predict short-term serious outcomes occurring after discharge in adult ED syncope patients.

NONCONVULSIVE SEIZURES AMONG CRITICALLY ILL CHILDREN: A PROSPECTIVE STUDY OF PREVALENCE, PATIENT CHARACTERISTICS AND OUTCOMES

Seizures are a common cause of brain injury, yet they are treatable and potentially preventable. Among critically ill children in coma, the majority of seizures are nonconvulsive, meaning they have no overt clinical signs. These unrecognized, untreated seizures are likely contributing to poor neurodevelopmental outcomes, with life-long consequences for children, their families and society. Dr. Cecil Hahn and his co-investigators have received funding to study critically ill children in coma admitted to the paediatric intensive care unit at the Hospital for Sick Children, Toronto. Six months following discharge, the researchers will assess whether children who experienced nonconvulsive seizures have greater disability and worse functional outcomes. This study will generate an unprecedented breadth and depth of information on nonconvulsive seizures, which will inform the care of critically ill children across Canada and internationally.

A PILOT STUDY EVALUATING THE COMBINATION HEPATITIS A AND B VACCINE (TWINRIX®) IN HEALTHY HEALTHCARE WORKERS WHO MEET THE CDC DEFINITION FOR NON-RESPONDERS

Hepatitis is a blood borne infection that is highly transmissible through occupational exposure in healthcare. Successful vaccination can provide years of protection. Those who fail to develop a protective antibody response after two complete attempts are labelled non-responders and are considered susceptible. A third attempt at vaccination is currently not recommended because of poor response (10%). Dr. Todd Lee and his supervisor Dr. Allison McGeer at Mount Sinai Hospital have hypothesized that double-dose Twinrix® will induce protective immunity in non-responders at a much higher rate than 10% and will therefore become a new standard of care for hepatitis B non-responders, particularly those at high-risk of infection with hepatitis B.

ORAL ANTI-VEGF THERAPY FOR ADVANCED DIABETIC NEPHROPATHY, ALONE AND IN COMBINATION WITH RAS-BLOCKADE

Diabetes is reaching epidemic proportions in Canada and has serious consequences for long-term health. Among these consequences is kidney disease and in fact kidney disease is the most common cause of kidney failure in Canada. Unfortunately, current treatments to prevent diabetic kidney disease are only partly effective and new therapies are urgently needed. A small protein called VEGF causes the tiny blood vessels of the kidney to become leaky. While blocking the way VEGF works protects the kidney very soon after diabetes has developed, it is not known whether the same approach may help people who have often had diabetes for many years. Dr. Andrew Advani of St. Michael's Hospital has been funded to investigate whether inhibiting VEGF can prevent the development of kidney failure with diabetes, when used alone and when used in combination with currently established treatments which would have direct potential to lead to new treatments to prevent or even reverse the progression of kidney disease in diabetes.

DETERMINATION OF THE AGE OF RUPTURED AND UNRUPTURED INTRACRANIAL ANEURYSMS

The objective of this study is to establish a method to date ruptured and unruptured intracranial aneurysms in patients treated with aneurysm clipping and excision. Dr. Nima Etmian and his supervisor Dr. R. Loch Macdonald hypothesize that rupture of intracranial aneurysms occurs as a result of instability and growth. Current epidemiological figures suggest that some aneurysms may even originate only weeks prior to rupture. Ruptured aneurysms should therefore consist to a great extent of new or young collagen, while unruptured aneurysms should consist of mature collagen types. If the hypothesis is true then it would be difficult to reduce the incidence of aneurysmal subarachnoid hemorrhage (SAH) by radiological screening of the population. The investigators' theory is supported by mathematical simulations of aneurysm growth rates and rupture and by observational studies. However, these data are theoretical or observational and to date no study has analysed aneurysms from patients to determine the age of the aneurysm. This grant will be used to test the hypothesis that unruptured aneurysms are older than ruptured aneurysms.

A ROLE FOR, AND MECHANISM OF ACTION OF, sCD200 IN TRANSPLANT GRAFT SURVIVAL

Organ transplantation represents the optimal treatment modality for end-organ failure, though significant problems are associated with the non-specific immunosuppression used to achieve successful graft survival, including opportunistic infection, drug toxicity and malignancy. Improved monitoring of host specific unresponsiveness to the graft would facilitate attempts at early dose reduction, and even withdrawal, of administered immunosuppressive drugs.

Dr. R.M. Gorczynski and Dr. G.A. Levy of Toronto General Hospital will use their grant to measure, both prospectively and retrospectively, sCD200 levels in cohorts of liver transplant patients, and correlate these values with their immune and graft status, and graft survival. The investigators plan to correlate the structure/function of sCD200 in patient sera with the mechanism(s) by which sCD200 modulates host immunity. The ELISA bioassay they will have developed to measure sCD200 will identify patients at risk of early rejection, and those able to be safely withdrawn from immunosuppressive drug therapy. Structure/function studies of the sCD200 released into the serum of such patients will define mechanisms predicting successful early engraftment and stable graft function. If these studies are successful, their bioassay will become a standard to be used in the medical management of patients, and the sCD200 molecule will be targeted as a means of improving patient survival and will also help identify individuals who will benefit from alternate therapies and suggest new avenues for treatment.

CULTURE OF ADULT HUMAN SPINAL CORD STEM/PROGENITOR CELLS AND THEIR TRANSPLANTATION INTO SPINAL CORD INJURED RATS

Many researchers are investigating the potential of stem cells for regenerating nerve cells, supporting cells and nerve processes in the injured spinal cord. Dr. Charles Tator and his co-investigators of Toronto Western Hospital hypothesize that the best stem cell for treating spinal cord injury in humans is from the adult human spinal cord, based partly on their recent results from transplanting adult rat spinal cord stem cells into rats with spinal cord injury. The investigators plan to grow human cells in culture from human spinal cords obtained from organ transplant donors, and then to transplant these cells into rats with spinal cord injury. Advantages of adult stem cells include no ethical concerns about harvesting, and no risk of cancer in the recipients. The rat experiments are necessary first steps towards using these stem cells to treat spinal cord injury in humans. Their long-term aim is to translate this work into patients with spinal cord injury to enhance neurological and functional recovery.

PROGNOSTICATION OF DELIRIUM IN ACUTELY MEDICALLY ILL OLDER ADULTS

Delirium, an acute confusional state, is a medical emergency and one of the most common conditions encountered in hospitalized elderly. It is associated with virtually all illnesses and encountered in medical, surgical, intensive care and emergency room settings. Given that the elderly are the fastest growing segment of the population, at highest risk of hospitalization, and the ubiquity of delirium, the management of delirium represents an increasingly important aspect of hospital care.

The cornerstone of delirium management is to investigate and treat the underlying associated illness. However, delirium frequently persists despite treatment of the underlying illness. Furthermore, independent of other confounding factors, delirium is associated with increased length of hospital stay, cost, future institutionalization, functional decline and mortality. Clinicians are unable to predict which patients will recover from delirium and which patients won't and management decisions are therefore largely empiric.

In this study, Dr. Monidipa Dasgupta of the University of Western Ontario will enroll elderly medical in-patients and a prognostic model for predicting poor recovery after delirium will be derived and subsequently validated. Study results will enable clinicians to make informed management decisions of delirium based on prognosis, and also identify high-risk individuals to target in future intervention trials to reduce complications of this costly geriatric syndrome.

FINANCIAL REPORT

2009 OVERVIEW

- Original investment by the doctors of Ontario: \$16.7 million in 1970
- Market value of assets as of December 31, 2009: \$80.7 million before accruing for future grant commitments (2008 – \$72.8 million)
- Increase in value of assets over prior year: \$7.8 million (2008 – decrease of \$18.6 million)
- Rate of return on investments: 17.6%, consisting of 3.8% from dividends and interest and 13.8% from an increase in market value of investments (2008 combined return was a negative 14.5%)
- Grants approved in 2009: \$4.6 million (2008 – \$3.5 million)
- Grants paid in 2009: \$3.7 million (2008 - \$4.1 million)
- Total grants paid since inception: \$102 million
- Future grant commitments at 2009 year end: \$4.2 million, with \$3.3 million payable in 2010, the remainder in 2011 (2008 - \$3.4 million with \$2.8 million payable in 2009)
- Operating costs, including investment management fees: \$1.2 million (2008 - \$1.2 million)
- Operating costs as percentage of assets under management: 1.6% (2008 - 1.7%)
- Asset allocation at year end:

| | 2009 | 2008 |
|------------------------|------|------|
| Canadian bonds | 37% | 43% |
| Canadian equities | 31 | 27 |
| U.S. equities | 18 | 19 |
| International equities | 11 | 10 |
| Cash | 3 | 1 |

2009 IN DETAIL

After a difficult start to 2009, when the market value of the assets of the PSI Foundation reached a nadir of \$67 million in February, we had at that time briefly considered withdrawing from equity markets, but fortunately decided to follow the old adage about remaining invested in the market through difficult times on the premise that markets always eventually recover and one must remain invested to participate in any recovery.

From mid-March to June the recovery came and dramatically so with gains in our Canadian equity portfolio exceeding 30% during that period. Gains in the third and fourth quarter were more modest, but still a welcome reversal from the sharp downward trend from September 2008 to mid-March 2009. In the first two months of 2010, equity markets have been flat and a clear direction for the balance of 2010 is not yet clear. There are good intentions on the part of political leaders to put in controls on the market economy to prevent a repeat of the excesses that contributed to the financial difficulties that occurred in 2008, but whether or not universal acceptance can be achieved is dubious.

Governments have made a concerted effort to arrest a general decline in economic activity, and related increase in unemployment, caused by the loss of confidence in the financial sector, by stimulus spending and providing supplementary credit facilities to banks and other financial institutions. Such activities normally result in inflationary pressures, but they have not yet materialized, and some observers feel they will not, so long as wage adjustment expectations remain reasonable.

Credit ratings for certain European governments are the current cause for concern, and of course there are always concerns about the balance sheet of the United States, by far the largest debtor of all.

In 2009 increased credit spreads between low-interest government bonds and higher-yield corporate securities resulted in our fixed-income portfolio, under the management of Beutel Goodman, having an exceptional year. Our fixed income portfolio is weighted towards utilities, pipelines and power generation, most of which are essential services with some degree of government rate regulation, and had a yield of 9.5% in 2009 vs. the reference bond index of 5.4%.

Canadian equities, the second largest component of our investments, had an exceptional year in 2009 being up 35% which corresponds to the increase in the S&P/TSX Composite Index. However, in 2008 our Canadian equities declined by 31% and so we do not yet have the market value that we had two years ago at the beginning of 2008. Banks, insurance companies and, oil and gas stocks, from the western Canadian energy sector represent 63% of our Canadian equity holdings. During 2009 our Canadian equity manager, Magna Vista, based in Montreal, was amalgamated with Doherty and Associates of Ottawa.

Our U.S. equity portfolio, managed by Neuberger Berman, was up almost 30% in 2009, slightly ahead of the S&P 500 index, but still again well below the market value at the beginning of 2008 before incurring a loss of 36% in that year. The exchange rate for the Canadian dollar in terms of US dollars has gone through an up-down-up cycle over the last three years, being \$1.00, \$0.81 and \$0.95 at the end of 2007, 2008 and 2009 respectively. This has meant that the substantial loss in our U.S. equities in 2008 was mitigated by the weakening of the Canadian dollar during that year, and the gains in 2009 were again mitigated, but this time by the strength of the Canadian dollar. The U.S. equity portfolio had a value of \$17.7 million at the beginning of 2008, but at the end of 2009 was still only at \$14.5 million despite the 30% gain in the U.S. dollar market value in 2009.

Our non-North American investments are under the management of AGF International Advisors, with the largest component being in the financial sector in Western Europe. A similar pattern with respect to the value of Canadian currency in terms of Euros has occurred as was the case for the Canadian currency in U.S. dollars over the last three years. In 2009 a gain of 17% in Canadian dollars was recorded in our international portfolio, bringing the value at year-end to \$8.8 million, which is only slightly less than the amount transferred to AGF International Advisors in September 2008, only days before the financial sector in the United States imploded.

The improvement in equity markets in 2009 had a large impact on our year-end financial statements. The market value of our shareholdings increased from \$40.3 million at the end of 2008 to \$48.4 million at year-end 2009. The income statement for 2008 had a reported loss of \$18.1 million, while for 2009 there was net income of \$7.0 million due to an unrealized gain of \$11.4 million on investments held at year-end.

Grants approved during 2009 and recorded on the income statement amounted to \$4.6 million as compared with \$3.5 million in 2008. Despite the difficulties in financial markets, the PSI Foundation has increased support for medical research, which also reflects on the quality of applications received. A similar level of grant awards is anticipated for 2010.

Operating expenses for 2009, including investment management fees and administrative costs, were \$1.2 million as they were in 2008 and in 2007. Slight increases in administrative costs have been offset by reduced investment management fees during the period of declining equity markets.

Having weathered the worst of the storm caused by the turbulence in financial markets from September 2008 to April 2009 due to the strength of our balance sheet, and without any interruption or diminishment of our granting activities, the PSI Foundation can look forward to maintaining its financial strength for many years to come.

During 2009 the cumulative total of grants for peer-reviewed medical research funded by the PSI Foundation since its inception in 1970, surpassed \$100 million, a remarkable achievement from modest beginnings and a reflection of the prudent investment policies for the funds of the Foundation over the past 40 years.

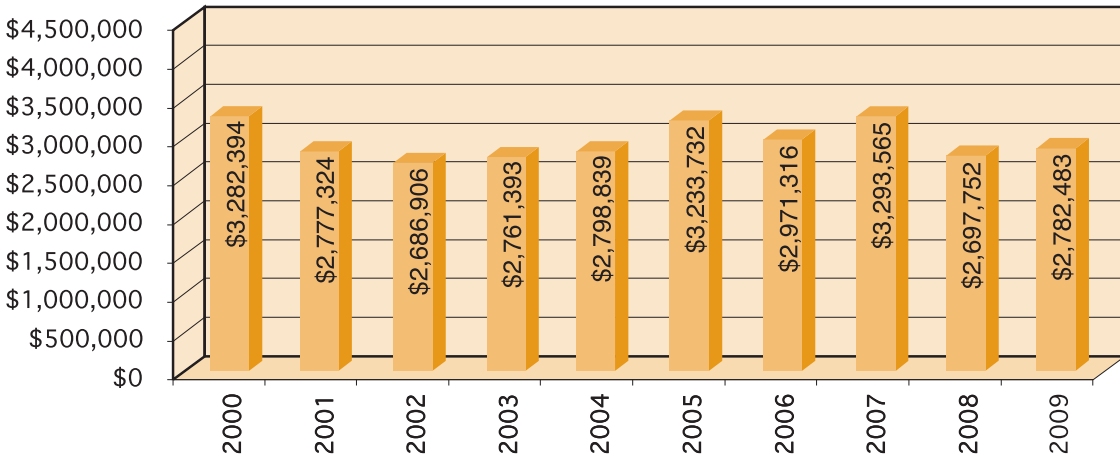
THE
PHYSICIANS'
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FINANCIAL SUMMARY

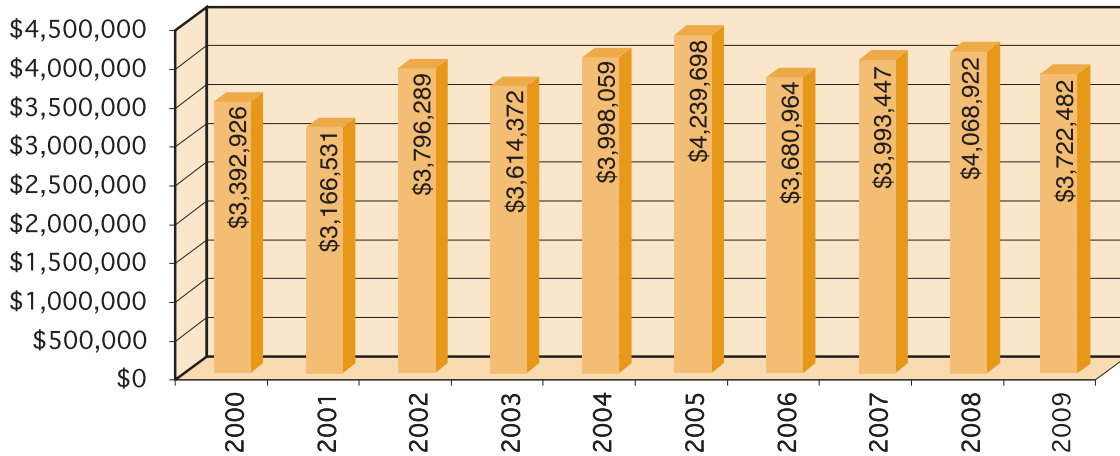
1970 - 2009

| | | |
|---|---------------|--------------------|
| Donated Capital | | \$ 16,693,123 |
| Capital appreciation | \$ 79,020,939 | |
| Revenue earned | 106,087,253 | 185,108,192 |
| | | <u>201,801,315</u> |
| Charitable Contributions | | 102,488,164 |
| Investment & administrative expenses | | 22,969,237 |
| | | <u>125,457,401</u> |
| Market value of assets, December 31, 2009 | | 76,343,914 |
| Market value of assets, December 31, 2008 | | 69,334,578 |
| | | <u>7,009,336</u> |
| Increase in Market Value of Assets for 2009 (net of liabilities)* | | |
| *Consisting of: | | |
| Deficit for year | | (3,034,118) |
| Capital Appreciation on Investments | | 10,043,454 |
| | | <u>7,009,336</u> |

REVENUE 2000 - 2009



GRANTS PAID 2000 - 2009





AUDITORS' REPORT

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

We have audited the statement of financial position of The Physicians' Services Incorporated Foundation as at December 31, 2009 and the statements of operations, changes in net assets and cash flows for the year then ended. These financial statements are the responsibility of the Foundation's management. 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 plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Foundation as at December 31, 2009 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles. As required by the Corporations Act (Ontario), we report that, in our opinion, these principles have been applied on a basis consistent with that of the preceding year.

Chartered Accountants, Licensed Public Accountants

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.

Toronto, Canada
January 27, 2010

**THE
PHYSICIANS'
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INCORPORATED
FOUNDATION**

**STATEMENT OF FINANCIAL POSITION
DECEMBER 31, 2009, WITH COMPARATIVE FIGURES FOR 2008**

| | 2009 | 2008 |
|--|----------------------|----------------------|
| ASSETS | | |
| Cash and cash equivalents (note 2) | \$ 2,668,717 | \$ 1,389,553 |
| Bonds and debentures (note 3) | 29,147,059 | 30,604,669 |
| Shares (note 3) | 48,366,936 | 40,251,807 |
| Dividends and interest receivable | 318,054 | 385,672 |
| GST receivable | 11,499 | 9,614 |
| Capital assets (note 4) | 1,502 | 5,918 |
| Accrued benefit asset (note 8) | 139,894 | 152,196 |
| | \$ 80,653,661 | \$ 72,799,429 |
| LIABILITIES AND NET ASSETS | | |
| Liabilities: | | |
| Accounts payable and accrued liabilities | \$ 76,405 | \$ 79,401 |
| Grants payable (note 5) | 4,233,350 | 3,385,450 |
| | 4,309,755 | 3,464,851 |
| Net assets: | | |
| Invested in capital assets | 1,502 | 5,918 |
| Internally restricted capital (note 6) | 76,342,404 | 69,328,660 |
| | 76,343,906 | 69,334,578 |
| Lease commitments (note 7) | | |
| | \$ 80,653,661 | \$ 72,799,429 |

See accompanying notes to financial statements.

On behalf of the Board:

J.H. Duff, M.D., President

G. Farquharson, Chair, Finance Committee

**THE
PHYSICIANS'
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FOUNDATION**

**STATEMENT OF OPERATIONS
YEAR ENDED DECEMBER 31, 2009, WITH COMPARATIVE FIGURES FOR 2008**

| | 2009 | 2008 |
|--|-------------------|---------------------|
| REVENUE: | | |
| Interest on bonds and debentures | \$ 1,457,589 | \$ 1,505,038 |
| Dividends | 1,322,217 | 1,147,302 |
| Interest on short-term notes | 2,677 | 45,412 |
| | <u>2,782,483</u> | <u>2,697,752</u> |
| EXPENSES: | | |
| Investment management fees | 425,440 | 478,780 |
| Administrative: | | |
| Salaries and benefits | 409,734 | 349,633 |
| Board and committee expenses | 133,394 | 163,652 |
| Rent and maintenance | 87,197 | 77,316 |
| Office supplies and expenses | 85,339 | 71,558 |
| Safekeeping charges | 60,805 | 55,430 |
| Legal and audit fees | 30,952 | 18,109 |
| Information services | 8,942 | 9,104 |
| Amortization of capital assets | 4,416 | 7,992 |
| | <u>820,779</u> | <u>752,794</u> |
| Grants | 4,570,382 | 3,538,572 |
| | <u>5,816,601</u> | <u>4,770,146</u> |
| Excess of expenses over revenue before the undernoted | (3,034,118) | (2,072,394) |
| Other income/expenses: | | |
| Realized gain (loss) on sale of investments | (1,319,513) | (3,243,567) |
| Unrealized gain (loss) on investments | 11,362,959 | (12,746,712) |
| | <u>10,043,446</u> | <u>(15,990,279)</u> |
| Excess of revenue over expenses (expense over revenue) | \$ 7,009,328 | \$ (18,062,673) |

See accompanying notes to financial statements.

THE
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STATEMENT OF CHANGES IN NET ASSETS
YEAR ENDED DECEMBER 31, 2009, WITH COMPARATIVE FIGURES FOR 2008

| | | | | 2009 | 2008 |
|--|-------------------------------|-------------------------------------|--------------|---------------|---------------|
| | INVESTED IN CAPITAL ASSETS | INTERNALLY RESTRICTED CAPITAL | UNRESTRICTED | TOTAL | TOTAL |
| Balance, beginning of year | \$ 5,918 | \$ 69,328,660 | \$ - | \$ 69,334,578 | \$ 87,397,251 |
| Excess of revenue over expenses (expenses over revenue) | (4,416) | - | 7,013,744 | 7,009,328 | (18,062,673) |
| Internally restricted capital (note 6) | - | 7,013,744 | (7,013,744) | - | - |
| Balance, end of year | \$ 1,502 | \$ 76,342,404 | \$ - | \$ 76,343,906 | \$ 69,334,578 |

See accompanying notes to financial statements.

**THE
PHYSICIANS'
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INCORPORATED
FOUNDATION**

**STATEMENT OF CASH FLOWS
YEAR ENDED DECEMBER 31, 2009, WITH COMPARATIVE FIGURES FOR 2008**

| | 2009 | 2008 |
|--|--------------|-----------------|
| Cash provided by (used in): | | |
| Operations: | | |
| Excess of revenue over expenses (expenses over revenue) | \$ 7,009,328 | \$ (18,062,673) |
| Items not involving cash: | | |
| Amortization of capital assets | 4,416 | 7,992 |
| Unrealized (gain) loss on investments | (11,362,959) | 12,746,712 |
| Change in non-cash operating items | 855,321 | (545,714) |
| | (3,493,894) | (5,853,683) |
| Financing and investments: | | |
| Decrease in bonds and debentures | 1,329,208 | 2,758,338 |
| Decrease in shares | 3,376,232 | 3,241,460 |
| Increase (decrease) in dividends and interest receivable | 67,618 | (21,706) |
| | 4,773,058 | 5,978,092 |
| Increase in cash and cash equivalents | 1,279,164 | 124,409 |
| Cash and cash equivalents, beginning of year | 1,389,553 | 1,265,144 |
| Cash and cash equivalents, end of year | \$ 2,668,717 | \$ 1,389,553 |
| Supplemental cash flow information: | | |
| Grants paid during the year | \$ 3,736,650 | \$ 4,163,247 |
| Grant refunds received during the year | (14,168) | (94,325) |
| Grants paid, net of refunds | \$ 3,722,482 | \$ 4,068,922 |

See accompanying notes to financial statements.

**THE
PHYSICIANS'
SERVICES
INCORPORATED
FOUNDATION**

**NOTES TO FINANCIAL STATEMENTS
YEAR ENDED DECEMBER 31, 2009**

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 |
|-------------------------|---------------------|
| Furniture and equipment | 20% |
| Computer equipment | 25% |
| Leasehold improvements | Over the lease term |

(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, 2007 and the next actuarial valuation is required effective June 1, 2010.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

NOTES TO FINANCIAL STATEMENTS (CONTINUED) YEAR ENDED DECEMBER 31, 2009

(g) Change in accounting policies:

The Foundation has adopted Section 3861, Financial Instruments - Disclosure and Presentation. In accordance with the Accounting Standards Board's decision to exempt notfor-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:

| | 2009 | 2008 |
|--------------------------------------|--------------|--------------|
| Cash on deposit | \$ 2,583,268 | \$ 1,259,356 |
| Beutel Goodman Cash Management Funds | 85,449 | 130,197 |
| | \$ 2,668,717 | \$ 1,389,553 |

3. INVESTMENTS:

Investments are managed by four independent investment managers.

| | 2009 | | 2008 | |
|------------------------------------|---------------|---------------|---------------|---------------|
| | BOOK VALUE | MARKET VALUE | BOOK VALUE | MARKET VALUE |
| Bonds and debentures: | | | | |
| Beutel Goodman and Company Limited | \$ 28,667,434 | \$ 29,147,059 | \$ 29,996,642 | \$ 30,604,669 |
| Shares: | | | | |
| Magna Vista Investment Management | 20,626,431 | 25,069,148 | 23,134,612 | 19,215,151 |
| Neuberger Berman, LLP | 13,582,209 | 14,517,258 | 14,471,772 | 13,602,170 |
| AGF Asset Management Group | 8,865,353 | 8,780,530 | 8,843,841 | 7,434,486 |
| | \$ 43,073,993 | \$ 48,366,936 | \$ 46,450,225 | \$ 40,251,807 |

4. CAPITAL ASSETS:

| | 2009 | | 2008 | |
|-------------------------|--------------------|-----------------------------|-------------------|-------------------|
| | BOOK VALUE COST | ACCUMULATED AMORTIZATION | NET BOOK VALUE | NET BOOK VALUE |
| Furniture and equipment | \$ 28,752 | \$ 28,752 | \$ - | \$ 129 |
| Computer equipment | 28,282 | 26,780 | 1,502 | 3,198 |
| Leasehold improvements | 18,141 | 18,141 | - | 2,591 |
| | \$ 75,175 | \$ 73,673 | \$ 1,502 | \$ 5,918 |

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, 2009**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 December 19, 2013. Future minimum payments, by year and in aggregate, are as follows:

| | | |
|------|----|--------|
| 2010 | \$ | 21,886 |
| 2011 | | 5,244 |
| 2012 | | 5,244 |
| 2013 | | 3,696 |
| | \$ | 36,070 |

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:

| | 2009 | 2008 |
|-------------------------------------|--------------|-------------|
| Accrued benefit obligation | \$ 752,757 | \$ 576,958 |
| Fair value of plan assets | 579,679 | 540,523 |
| Funded status - deficit | \$ (173,078) | \$ (36,435) |
| Unamortized transitional obligation | \$ 4,823 | \$ 7,232 |
| Unamortized net actuarial loss | 308,149 | 181,399 |
| Accrued benefit asset | \$ 139,894 | \$ 152,196 |

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

| | 2009 | 2008 |
|--|--------|--------|
| Discount rate | 5.50 % | 7.50 % |
| 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, 2009

The net expense for the Foundation's defined benefit plan for the current year was \$40,200 (2008 - \$29,200).

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

| | 2009 | 2008 |
|--------------------------|-----------|-----------|
| Employer contributions | \$ 27,898 | \$ 42,162 |
| Employees' contributions | 11,968 | 14,481 |

The fair value of plan assets consists of the following:

| | 2009 | 2008 |
|---------------------------|----------|----------|
| Cash and cash equivalents | 3.90 % | 5.78 % |
| Fixed income | 37.26 % | 36.21 % |
| Equities | 58.84 % | 58.01 % |
| | 100.00 % | 100.00 % |

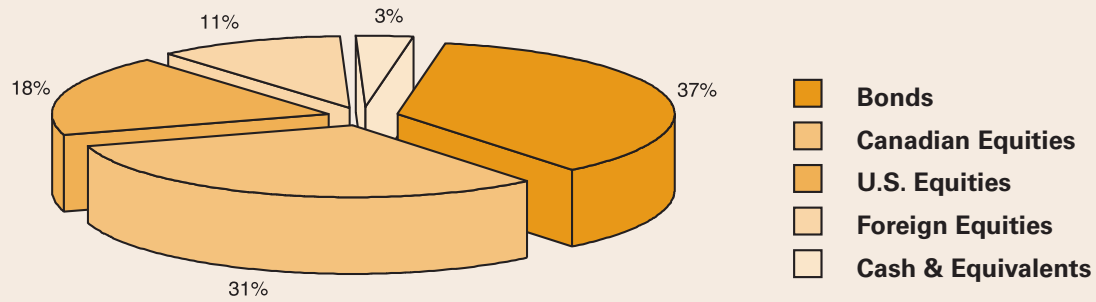
9. FAIR VALUE OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES:

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.

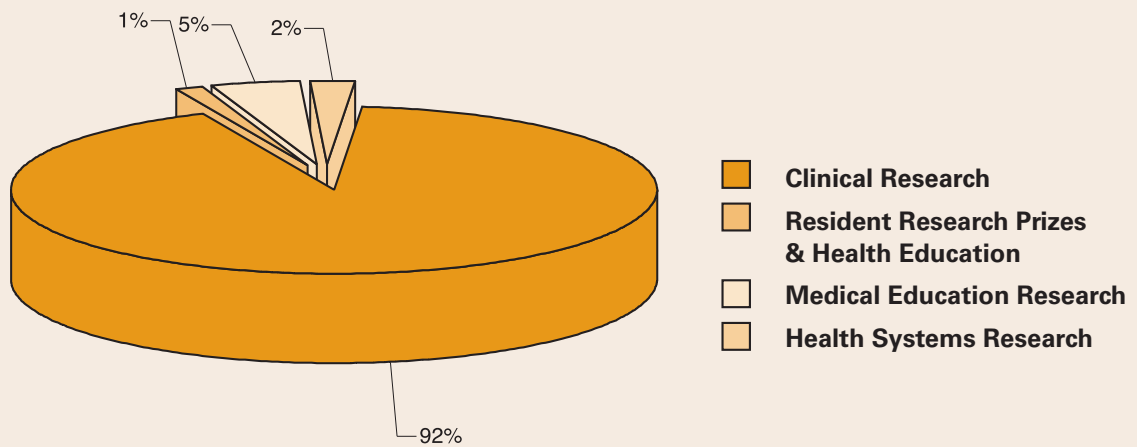
Foreign exchange risk arises from fluctuations in foreign exchange rates and the degree of volatility of these rates. The Foundation is exposed to foreign exchange risk in its foreign investment portfolios. The Foundation does not use derivative instruments to reduce its exposure to foreign investment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

2009 DISTRIBUTION OF ASSETS AT MARKET VALUE



2009 DISTRIBUTION OF GRANTS APPROVED



**THE
PHYSICIANS'
SERVICES
INCORPORATED
FOUNDATION**

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2009

**AMOUNT
APPROVED**

HEALTH EDUCATION

Fellowships for Practising Physicians

| | | |
|------------------------------|----|-------|
| Dr. G. Cheng, St. Catharines | \$ | 4,700 |
| Dr. A. Siren, Thunder Bay | \$ | 4,250 |

Total Health Education

\$ 8,950

HEALTH SYSTEMS RESEARCH

University of Western Ontario

| | | |
|---|----|---------|
| Dr. D. Naudie Cost Effectiveness of Web based Follow-Up following Total Joint Arthroplasty | \$ | 101,500 |
|---|----|---------|

Total Health Systems

\$ 101,500

MEDICAL EDUCATION RESEARCH

University of Toronto

| | | |
|---|----|--------|
| Dr. E. You-Ten Clinical impact of Cricothyrotomy on the proficiency of nontechnical skills in management of life threatening airway crisis in a full scale high fidelity patient simulator | \$ | 11,000 |
|---|----|--------|

Mount Sinai Hospital

| | | |
|--|----|--------|
| Dr. E. Grober Validation of Real-time, Intra-operative, Surgical Competence (RISC) assessments linked to patient outcomes | \$ | 91,500 |
|--|----|--------|

| | | |
|---|----|--------|
| Dr. M. Roberts, Dr. E. Grober Intra-operative assessment of technical skill using economy of hand motion: Establishing learning curves of surgical competence | \$ | 70,500 |
|---|----|--------|

St. Michael's Hospital

| | | |
|---|----|--------|
| Dr. B. Sharma*, Dr. T. Grantcharov Comparing three different Non Technical Skills Assessment Tools in the Post Operative Setting | \$ | 19,200 |
|---|----|--------|

Toronto Western Hospital

| | | |
|---|----|--------|
| Dr. M. Hayter*, Dr. V. Chan Validating the efficacy of a task specific checklist versus a global rating scale in evaluating the proficiency of ultrasound guided supraclavicular nerve blocks in operators at various levels of training | \$ | 19,000 |
|---|----|--------|

Total Medical Education Research

\$ 211,200

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2009 (CONTINUED)

AMOUNT
APPROVED**CLINICAL RESEARCH****Centre for Addiction and Mental Health**

| | | |
|--|----|--------|
| Dr. K. Kolla*, Dr. J. Meyer | | |
| An investigation of prefrontal monoamine oxidase-A density in individuals with major depressive episode and comorbid borderline personality disorder | \$ | 20,000 |

Hospital for Sick Children

| | | |
|--|----|---------|
| Dr. T.K.S. Cypel, Dr. C. Forrest | | |
| The role of anti-osteogenic signalling in the pathophysiology of craniosynostosis in infants | \$ | 25,000 |
| Dr. C. Hahn | | |
| Nonconvulsive seizures among critically ill children: A prospective study of prevalence, patient characteristics and outcomes. | \$ | 167,000 |
| Dr. E. Pope | | |
| Nadolol for proliferating infantile hemangiomas: A prospective open label study | \$ | 31,000 |
| Dr. E. Widjaja | | |
| Improving lesion detection in children with MRI-negative partial epilepsy using diffusion tensor imaging | \$ | 45,000 |

McMaster University

| | | |
|--|----|--------|
| Dr. L. McIntyre, Dr. D. Cook | | |
| PE METRICS: Pulmonary Embolism: Methodology, Epidemiology & Treatment In Critical Care Study | \$ | 41,600 |
| Dr. Frank Smith | \$ | 1,400 |
| Seed Grant: Functional outcomes, energy expenditure and ambulation effort following hip resurfacing versus total hip arthroplasty for patients younger than 55 years | | |

St. Michael's Hospital

| | | |
|---|----|---------|
| Dr. A. Advani | | |
| Oral anti-VEGF therapy for advanced diabetic nephropathy, alone and in combination with RAS-blockade | \$ | 149,500 |
| Dr. J. Batt | | |
| Molecular Mechanisms Underlying ICU-Acquired Skeletal Muscle Dysfunction | \$ | 169,300 |
| Dr. C. dos Santos | | |
| Identification of cyclic-stretch sensitive transcription factors in pulmonary epithelial cells that play a role in ventilator induced lung injury (VILI). | \$ | 158,000 |
| Drs. N. Etminan, L. Macdonald | | |
| Determination of the age of ruptured and unruptured intracranial aneurysms | \$ | 143,000 |
| Dr. R. Gilbert | | |
| Cultured bone marrow derived cell therapy for progressive chronic kidney disease | \$ | 166,000 |
| Dr. G.M.T. Hare | | |
| B1-Adrenergic Antagonists Impair Murine and Human Resistance Artery Function | \$ | 159,800 |
| Dr. J. Marshall, Dr. K. Burns | | |
| The Collaborative H1N1 Adjuvant Treatment (CHAT) Pilot Trial | \$ | 85,000 |
| Dr. A. Rigamonti | | |
| Effect of bilateral scalp nerve blocks on post-operative pain and discharge times in patients undergoing supra-tentorial craniotomy and general anaesthesia | \$ | 120,000 |
| Dr. A. Tang*, Dr. S. Verma | | |
| Neuregulin and Endothelial Dysfunction | \$ | 20,000 |
| Dr. S. Trop*, Dr. S. Verma | | |
| Comparison of the inflammatory response to cardiopulmonary bypass between South Asians and Caucasians | \$ | 20,000 |
| Dr. B. Yanagawa*, Dr. S. Verma | | |
| DJ-1 Signalling in Human Cardiac Ischemia Reperfusion | \$ | 20,000 |

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2009

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)****Mount Sinai Hospital**

| | | |
|--|----|--------|
| Dr. M. Alarab | | |
| Expression of modulators of collagen and elastin remodeling in vaginal tissue of premenopausal women with severe pelvic organ prolapse | \$ | 26,800 |
| Dr. H. Amsalem*, Dr. J. Kingdom | | |
| Decidual neutrophils a novel finding: Their role in second trimester placentation | \$ | 15,000 |
| Dr. M.A.T Bortolini, Dr. M. Alarab | | |
| Expression of smooth muscle contractile machinery proteins in the vaginal tissue of women with and without pelvic organ prolapse | \$ | 16,400 |
| Dr. J. de Almeida*, Dr. A. Vescan | | |
| Development of the University of Toronto Skull Base Inventory (UTSBI) quality of life scale | \$ | 19,000 |
| Dr. T. Lee*, Dr. A. McGeer | | |
| Combination Hepatitis A and B vaccine to induce immunity in non-responders | \$ | 19,000 |

Northern Ontario School of Medicine

| | | |
|--|----|---------|
| Dr. T. Best | | |
| Surgical peripheral nerve decompression for the treatment of diabetic neuropathy in the foot | \$ | 151,000 |

Queen's University

| | | |
|--|----|---------|
| Dr. A. Archibald*, Dr. S. Vanner | | |
| The development of a protocol for colonoscopic monitoring of live mice | \$ | 13,000 |
| Dr. A. D'Sa*, Dr. P. Belliveau | | |
| Inhaled carbon monoxide in patients with post-operative ileus following colon resection | \$ | 20,000 |
| Dr. C. Justinich | | |
| The role of PRRs and antigen presentation in esophageal epithelial cell response to injury | \$ | 163,000 |
| Dr. J. Muscedere | | |
| Candida in Respiratory Tract Secretions of Critically Ill Patients and Efficacy of Treatment (The CANTREAT Study): A prospective, randomized, double blind, placebo controlled pilot study | \$ | 150,000 |
| Dr. A. Muinuddin*, Dr. W.G. Paterson | | |
| Barium esophagrams in eosinophilic esophagitis: Identifying a narrow esophagus | \$ | 11,000 |
| Dr. R. Poley*, Dr. J. Newbigging | | |
| Can emergency physicians safely exclude proximal DVT? | \$ | 19,500 |
| Dr. G. N. Smith | | |
| Effect of carbon monoxide on placental function and development | \$ | 165,500 |
| Dr. J. Snowdon*, Dr. T. Childs | | |
| Application of microRNA expression profiles for prognostication in endometrial carcinoma | \$ | 20,000 |
| Dr. S. Varma*, Dr. S. Sengupta | | |
| The ezrin signalling network as a potential novel marker for breast cancer metastasis | \$ | 20,000 |
| Dr. J. Yeung*, Dr. S. El-Defrawy | | |
| Comparative case controlled study of iris histological features in tamsulosin (Flomax) exposed eyes | \$ | 20,000 |

University of Ottawa

| | | |
|--|----|--------|
| Drs. L. Gaudet*, M. Walker | | |
| Does maternal obesity modify pregnancy outcomes for macrosomic infants | \$ | 13,000 |
| Dr. D. Kubelik*, Dr. A. Seely | | |
| Cardiopulmonary variability as a weaning predictor | \$ | 11,000 |

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2009

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)****University of Ottawa (continued)**

| | | |
|--|----|---------|
| Dr. C. Pound | | |
| The impact of a breastfeeding support intervention on breastfeeding duration in jaundiced infants admitted to a tertiary care centre hospital: A randomized controlled trial | \$ | 96,000 |
| Drs. A. Scheer*, R. Boushey | | |
| The development and evaluation of a patient decision aid for patients with mid and distal rectal cancer | \$ | 20,000 |
| Dr. V. Thiruganasambandamoorthy, Dr. I. Steill | | |
| A Study to Derive a Clinical Decision Rule to predict short-term serious outcomes in adult syncope patients after Emergency Department discharge | \$ | 166,800 |
| Dr. J. Woulfe | | |
| Hap-40 INRs: A selective morphological marker of MCH neurons | \$ | 102,000 |

Toronto General Hospital

| | | |
|--|----|---------|
| Dr. S. Abadi, Dr. N. Paul | | |
| Adult breast radiation dose from cardiothoracic imaging protocols, a phantom study | \$ | 13,000 |
| Dr. M. Barua*, Dr. Y. Pei | | |
| Mapping a disease gene for medullary sponge kidney | \$ | 15,500 |
| Dr. A. Cheung | | |
| The effect of whole body vibration on tibial trabecular bone mineral density in osteopenic postmenopausal women | \$ | 83,000 |
| Dr. R. Gorczynski, Dr. G.A. Levy | | |
| A role for, and mechanism of action of, sCD200 in transplant graft survival | \$ | 169,000 |
| Dr. T. Lindsay | | |
| Complement mediated organ injury following ruptured abdominal aortic aneurysm: Human and animal investigations leading to pilot intervention studies | \$ | 80,000 |
| Dr. C. Lok, Dr. L. Moist | | |
| Best Extremity Survival Times and Concurrent Complications: Examination of Secondary Access - BEST ACCESS - Pilot study | \$ | 115,000 |
| Dr. K-T. Tan | | |
| Local delivery of raclitaxel for prevention of restenosis in hemodialysis access. | \$ | 61,000 |
| Dr. D. Wong | | |
| Does boussignac CPAP compared to venturi mask improve oxygenation and pulmonary function in morbidly obese patients undergoing bariatric surgery? | \$ | 46,000 |

Toronto Western Hospital

| | | |
|--|----|---------|
| Dr. J. Barfett*, Dr. D. Mikulis | | |
| Quantification of Cerebral Aneurysm Deformation with the Cardiac Cycle by Dynamic 4D Computed Tomography: Does Deformation Correlate with Aneurysm Stability | \$ | 15,800 |
| Dr. M. Hodaie, K. Davis Ph.D | | |
| Diffusion based tractography and structural brain imaging in trigeminal neuralgia: correlation with quantitative sensory testing and response to treatment | \$ | 154,000 |
| Dr. C. Tator | | |
| Culture of adult human spinal cord stem/progenitor cells and their transplantation into spinal cord injured rats | \$ | 158,000 |

University of Western Ontario

| | | |
|---|----|---------|
| Dr. M. Dasgupta | | |
| Prognostication of delirium in acutely medically ill older adults | \$ | 152,000 |

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2009

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)****University of Western Ontario (continued)**

| | |
|--|---------------------|
| Dr. S. Dhir Success rate of infra-clavicular blocks: comparison of ultrasound vs. neurostimulation guided catheter placement | \$ 60,000 |
| Dr. D. Hackam Statins and renovascular disease | \$ 62,000 |
| Dr. S. Mirsatarri Using functional MRI to assess cerebral cortical function in coma | \$ 58,000 |
| Dr. Montero-Odasso Can cognitive enhancers reduce the risk of falls in older people with mild cognitive impairment: A randomized controlled trial | \$ 158,000 |
| Drs. V. Patel*, J. Gregor The effect of intestinal proton-coupled folate transporter(PCFT) expression on the disposition of methotrexate | \$ 20,000 |
| Dr. A. Pirbhai*, Dr. S. Sharan Long term outcomes in retinopathy of prematurity - A southwestern Ontario experience | \$ 20,000 |
| Dr. C. Temple, Dr. D. Ross Postoperative cognitive dysfunction after major reconstructive surgery | \$ 33,000 |
| Total Clinical Research | \$ 4,272,900 |
| Resident Research Prizes for Excellence in Research Papers** | \$ 30,000 |
| GRAND TOTAL | \$ 4,624,550 |

*Funded through the Resident Research Grant Program

** Approval allocation for Northern Ontario Medical School now participating in program

**THE
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FOUNDATION**

RESIDENT RESEARCH PRIZES

FOR EXCELLENCE IN RESEARCH PAPERS 2009

| TITLE OF PAPER | AWARDEE | DEPARTMENT |
|--|----------------------|--|
| McMaster University | | |
| Tension And Tisseel: How Do In Vitro Peripheral Nerve Hold Up? | Card, Annika | Plastic Surgery |
| Implementation of a Respiratory Therapist- Driven Protocol for Neonatal Ventilation: Impact on the Premature Population | Hermeto, Fernanda | Pediatrics |
| The Rational Clinical Examination: Does My Patient with Diabetes Have Diabetic Peripheral Neuropathy? | Kanji, Jamil | Internal Medicine |
| A Systematic Review of the Efficacy and Acceptability of Mood Stabilizers in the Treatment of Acute Bipolar Depression | Van Lieshout, Ryan | Psychiatry & Behavioural Neurosciences |
| Nitric Oxide Donors in Sepsis: A Systematic Review of Clinical and in Vivo Pre-Clinical Data | Lamontagne, Francois | Critical Care Medicine |
| Northern Ontario School of Medicine | | |
| Diabetic Control in Hospitalized Patients: A Comparison of Home Diabetic Regime Versus Switch to SSI | Bell, Georgina | Family Medicine |
| Queen's University | | |
| Emergency Department Targeted Ultrasound for the Detection of Hydronephrosis | Bruder, Eric | Emergency Medicine |
| Liver Biopsies for Chronic Hepatitis C: Should Non-Guided Biopsies be Abandoned? | Flemming, Jennifer | Internal Medicine |
| A Population Based Study of Factors Affecting Access to Radiotherapy for Endometrial Cancer in Ontario | Hanna, Timothy | Radiation Oncology |
| Relationship Between Feeding Schedules and Gastric Distress During Retinopathy of Prematurity (ROP) Screening Eye Examinations | Strube, Yi Ning | Ophthalmology |
| Microna Expression Profiles in Endometrial Carcinoma | Snowdon, Jaime | Anatomical Pathology |
| University of Ottawa | | |
| Cigarette Smoking and Low Back Pain in the Adult Population | Alkherayf, Fahad | Neurosurgery |
| Risk of Birth Defects Increased in Pregnancies Conceived by Assisted Human Reproduction | El-Chaar, Darine | Obstetrics and Gynaecology |
| Protastatic Adenocarcinoma and Status of Resection Margin of Radical Prostratectomy Associated with Core Biopsies with Atypical Small Acinar Proliferation or Minimal Cancer | Flood, Trevor | Anatomical Pathology |
| Chronic Kidney Disease: Adherence to Management Guidelines in an Academic Family Medicine Centre | Richard, Megan | Family Medicine |
| Utility of Postoperative Surveillance Magnetic Resonance Imaging for Cerebellar Astrocytoma | Shamji, Mohammed | Neurosurgery |

RESIDENT RESEARCH PRIZES

FOR EXCELLENCE IN RESEARCH PAPERS 2009 (CONTINUED)

| TITLE OF PAPER | AWARDEE | DEPARTMENT |
|--|-----------------|----------------------|
| University of Toronto | | |
| Functional Evaluation of Intravascular Blood Flow from Dynamic CTA Datasets: Techniques and Neurovascular Applications | Barfett, Joe | Diagnostic Radiology |
| Cerebral Arteriopathy in Children with Neurofibromatosis Type 1 | Brandsema, John | Paediatric Neurology |
| Bereavement Practices of Physicians in Oncology and Palliative Care | Chau, Nicole | Medical Oncology |
| Re-Enacting the ENACT in Gyrencephalic Non-Human Pirates: A Reverse-Engineered Solution to the Missing Link in Translational Stroke Research | Cook, Douglas | Surgery |
| An FMri Investigation of Reversal Learning in Violent Offenders With Psychopathy and Antisocial Personality Disorder | Kolla, Nathan | Psychiatry |
| University of Western Ontario | | |
| What is the Prevalence of Methicillin-Resistant Staphylococcus Aureus in Skin and Soft Tissue Infections Presenting to the Emergency Department of an Academic Health Center? | Achiam, Cimi | Emergency Medicine |
| Real World Anti-TNF Treatment In Rheumatoid Arthritis, Psoriatic Arthritis and Ankylosing Spondylitis: Cost-Effectiveness Based on Number Needed to Treat to Improve HAQ | Barra, Lillian | Rheumatology |
| Does Hypothermia Reduce Muscle Damage in Compartment Syndrome? An Experimental Study | Chan, Gladys | Orthopaedic Surgery |
| The Tavistock Vision Screening Project: Part 1 | Cowing, Barbara | Family Medicine |
| Combined 3-Dimensional Coronary and Myocardial Scar Imaging Using a Single Free-Breathing, Contrast-Enhanced Magnetic Resonance Approach: Implications for Pre-Procedural Planning and Intra-Procedural Guidance of Cardiovascular Interventions | Fine, Nowell | Cardiology |

**THE
PHYSICIANS'
SERVICES
INCORPORATED
FOUNDATION**

**RECENTLY PUBLISHED PAPERS
ON FOUNDATION FUNDED PROJECTS**

| TITLE | GRANTEE | JOURNAL |
|---|--------------------------|--|
| Nocturnal hemodialysis improves erythropoietin responsiveness and growth of hematopoietic stem cells. | Chan, C J. | Am. Soc. Nephrol., 20:665-671, 2009 |
| Elimination of preoperative testing in ambulatory surgery. | Chung, F | Anesth Analg., 108(2): 467-475, 2009 |
| Efficacy of alternate day versus daily dosing of rosuvastatin. | Dulay, D LaHaye, S | Can Journal of Cardiology, 25(2):e28-e31, 2009 |
| Screening for Capacity Amongst ICU Survivors in the Patient Evaluations Rating Methods for Inclusion in Trials (PERMIT) Pilot Study | Ferguson, N Scales, D | Intensive Care Medicine, 2007; 33:5112 |
| Impact of the patient provider relationship on the survival of foreign born outpatients with tuberculosis | Gardam, M Khan, K | J Immigrant Minority Health (2009) 11:437-445 |
| Postrecovery cognitive decline in adults with traumatic brain injury. | Green, R.E. | Archives of Physical Medicine and Rehabilitation, 89 (12) S25-34 |
| Anemia and Cerebral Outcomes: Many Questions, Fewer Answers | Hare, G. | Anesth Analg 2008; 107:1356-70 |
| Mid-Trimester Serum Relaxin Concentrations and Post-Partum Pelvic Floor Dysfunction | Harvey, M.A. | Act Obst & Gyn 2008; 87: 1315-1321 |
| Building consensus on ICU-acquired weakness. | Herridge, M | Intensive Care Medicine, 35(1):1-3, 2009 |
| Chronic sleep disorders in survivors of the Acute Respiratory Distress Syndrome (ARDS). | Herridge, M | Intensive Care Medicine, 35(2):314-320, 2009 |
| The association between central venous pressure, pneumoperitoneum, and venous air embolism in laparoscopic hepatectomy. | Jayaraman, S Quan, D | Surg Endosc (2009) 23:2369-2373 |
| Magnetic Resonance Imaging Evidence of Progression of Sub-Acute Atrophy in Moderate to Severe Traumatic Brain Injury | Mikulis, D.R. | Archives of Physical Medicine and Rehabilitation, 89 (12) S35-44 |
| Operating from the Other Side of the Table: Control Dynamics and the Surgeon Educator | Moulton, C. A. | Journal of American College of Surgeons 2010; 210: 79-86 |
| Tube Feeding and Quality of Life in Children with Severe Neurologic Impairment | Mahant, S | Arch Dis Child 2009;94:668-673 |

RECENTLY PUBLISHED PAPERS

ON FOUNDATION FUNDED PROJECTS (CONTINUED)

| TITLE | GRANTEE | JOURNAL |
|---|--------------------------------|---|
| Functional MRI Characteristics of a Focus Region of Cortical Malformation Not Associated with Seizure Onset | Mirsattari, S.M. | Epilepsy & Behaviour 10 (2007) 615-625 |
| Can Telehealth Ontario Respiratory call volume be used as a proxy for emergency department respiratory visit surveillance by public health? | Moore, K | CJEM, 10(1) 18 – 24, 2008 |
| Rehabilitation of Reaching and Grasping Function in Severe Hemiplegic Patients using Functional Electrical Stimulation Therapy | Popovic, M.R. | J. Neuro – Rehabil. Neural Repair, 22(6): 706-714, 2008 |
| Effect of cell-based VEGF gene therapy on healing of a segmental bone defect. | Schemitsch, E J. | Orthopaedic Research, 27(1):8-14, 2009 |
| Adiponectin Deficiency Promotes Endothelial Activation and Profoundly Exacerbates Sepsis-Related Mortality | Szmitko, P.E | Am J Physiol Endocrinol Metab 295:658-664, 2008 |
| The Out-of-Hospital Validation of the Canadian C-Spine Rule by Paramedics | Vaillancourt, C Ann | Emerg Med. 2009;54:663:671 |
| Construction of a parent derived questionnaire to measure end-of-life care after withdrawal of life sustaining treatment in the neonatal intensive care unit. | Williams, C Kirpalani, H.M. | Pediatrics 123(1):e87-e95, 2009 |
| Comparison of the in vitro safety of intraocular dyes using two retinal cell lines: a focus on brilliant blue G and indocyanine green. | Yuen, D Hutnik, C | Am J Ophthalmol., 147 (2):251-259.e2, 2009 |

SCIENTIFIC PRESENTATIONS FOR 2010 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 2010 meeting, as well as brief descriptions of their projects. These are just two examples of the many outstanding clinician scientists whose work the Foundation is proud to have funded.

DR DONALD ARNOLD, McMASTER UNIVERSITY A MULTI-FACETED STRATEGY TO REDUCE INAPPROPRIATE USE OF FRESH FROZEN PLASMA TRANSFUSIONS IN THE ICU

Dr. Arnold is an Assistant Professor in the Department of Medicine, division of Hematology and Thromboembolism at McMaster University in Hamilton. Dr. Arnold is currently the Program Director for the Transfusion Medicine Residency Program at McMaster and Associate Medical Director of the Canadian Blood Services, Hamilton centre. His area of research interest is in blood disorders including immune thrombocytopenic purpura (ITP), neonatal alloimmune thrombocytopenia (NAT) and thrombotic thrombocytopenic purpura (TTP). Dr. Arnold holds a New Investigator Award from CIHR in partnership with Hoffmann-LaRoche.

Dr. Arnold, and his co-investigators Dr. Deborah Cook and Dr. Francois Lauzier were awarded a grant to evaluate the impact of a multi-faceted behaviour change strategy aimed at decreasing inappropriate fresh frozen plasma (FFP) transfusions in the intensive care unit.

FFP is a blood transfusion product that is commonly used to treat or to prevent bleeding in patients admitted to the intensive care unit (ICU). Although Canadian transfusion guidelines exist, there are evidence-based recommendations to help inform clinicians about transfusing blood products in critically ill patients. Previous work done by this research team has shown that 43% of FFP transfusions were administered inappropriately in the ICU.

Reducing inappropriate use of FFP in critically ill patients will have a significant impact on reducing health costs and improving health care delivery. This study has the potential to improve patient-centered outcomes by minimizing harm, reducing unnecessary health care expenditures by avoiding the waste of blood products and may be applied to all ICU's across Ontario.

DR. STEPHANIE PALERME, QUEEN'S UNIVERSITY FUNCTIONAL MAGNETIC RESONANCE IMAGING OF APPETITE CIRCUITS

Dr. Palerme is an Assistant Professor in the Department of Obstetrics and Gynaecology at Queen's University. Dr. Palerme completed the CARE (contraception awareness, research and education) Fellowship at Queen's University from 2003 - 04. She is now in the process of completing her Masters in Community Health and Epidemiology. Her clinical activities and research interests are focused on PCOS, adolescent obstetrics, hematologic disorders in women and contraceptive challenges.

Dr. Palerme with her co-investigator Dr. Dean Van Vugt hypothesize that women with polycystic ovarian syndrome (PCOS) who are insulin resistant will exhibit an abnormal response to visual stimuli or an oral glucose tolerance test (OGTT) in a number of brain regions that control appetite as well as in regions responsible for reward, learning, and emotional aspects associated with eating. Although not diagnostic of PCOS, insulin resistance and obesity are commonly associated with the syndrome. PCOS is the most common endocrinopathy affecting women of reproductive age. Women with PCOS have an increased incidence of obesity, dyslipidemia, insulin resistance and hypertension (referred to as metabolic syndrome). However, since not all women with PCOS are obese or insulin resistant, these two conditions can be studied in isolation. The investigators are confident the results of the study will provide important insights necessary for developing new therapeutic strategies for preventing and treating obesity in women with PCOS.



Dr. Donald Arnold



Dr. Stephanie Palerme

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 RESIDENT 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.