



PSI
FOUNDATION

2014
ANNUAL REPORT

APPLICATION PROCEDURE

All requests for research project funding from PSI Foundation may be submitted at any time. A decision will be made at the next grants meeting following the peer review process. Decisions can be expected within 6 months.

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:

PSI Foundation
Suite 1006
5160 Yonge Street
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

PSI Foundation is a non-profit physician centred organization dedicated to improving the health of Ontarians through excellence and innovation in clinically relevant research and education.

PSI FOUNDATION

Suite 1006
5160 Yonge Street
Toronto, Ontario
M2N 6L9

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* retired 2014

† joined 2014

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Raisa Bhuiyan, *Office Assistant*

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* retired 2014

** special Committee members

† joined 2014

‡ term ended April 2014

° term began April 2014

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PRESIDENT'S REMARKS

This report is to review the work of the PSI Foundation for the past year. It has truly been another incredible year.

Our mission of trying to improve the health of all Ontarians is always foremost in our decision making. The collective engagement and commitment of our Board members is exemplary and highly commendable.

This year we focused much activity on critically assessing our programming and activities. Areas of interest this year have included:

- Grant applications are no longer subjected to a deadline: applicants may apply at any time. The process of finding outside expert reviewers is begun immediately, and when the file is complete it is reviewed at the next Grants Committee meeting. This may result in a grant being reviewed 3 months earlier than with the older process.
- All aspects of the application process will shortly be managed electronically with a web-based grants management system.
- PSI streamlined payment of grants. After meeting with each of Ontario's universities we determined that there was a lot of red tape in certain grantees receiving their funding. These obstacles have been removed.
- Health Research Alliance (HRA) partnership allows us to remain current with best practices in managing the Foundation. This year we attended two meetings of the HRA.
- PSI's website has been updated to provide the most up to date information, including grantsmanship, as well as profiles of our grantees, and testimonials celebrating our history.
- We instituted the Northern Ontario School of Medicine Visiting Scholarship. The goal is to build research capacity in the north.
- We established an early career award grant valued at \$250,000 over three years. This is to promote excellence in research and help kick start research careers.
- We have restructured our resident grant program to emphasize the role of the resident.
- Each year we have unused grant funds where the award has been declined or grantees have received funding elsewhere. We decided that rather than returning such funds to the general fund, we would award grants to researchers who had met the threshold for funding but were declined due to lack of funds.

The Grants Committee continues to be ably chaired by Dr. Andrew Baker. The Committee is constituted of Dr. Jim King (Ottawa), Dr. David McNeely (Toronto), Dr. Robin Walker (London), Dr. Deborah Cook (Hamilton), John Toye (Orillia), and Dr. Naana Jumah (Thunder Bay). They have donated their time and talent to maintain the high caliber of the grants process. We reviewed a large amount number of high quality grants by Ontario clinician scientists. It should be noted that we are one of the only Foundations in North America to fund 100% clinician scientists. We funded 51 grants worth a total of \$4.27 million. This represents 20% of requested grant dollars.



(CONTINUED ON NEXT PAGE)

PRESIDENT'S REMARKS (CONTINUED)

The Finance Committee continues to be ably chaired by Mr. John Sharp and assisted by Mr. John Eby, Mr. Paul Richardson, Mr. Jim McGill, and Dr. Robert McMurtry. We made a bold decision over the past two years to move our endowment funds primarily into equity investments. With the poor returns from fixed asset investments, we needed to make a change if we wanted to continue funding at the current rate. The results have been dramatic. Over the past three years our original \$75 million has produced a return of \$40 million. \$11 million of these dollars funded the work of the Foundation while another \$24 million has been added to the capital base. We now have approximately \$100 million in the endowment. This financial improvement is allowing us to review our mission and determine whether there are other area of education and research that might help us improve the health of Ontarians. It is indeed an exciting time.

I would like to acknowledge Mr. Sam Moore, our Executive Director. He diligently oversees every aspect of the work of the Foundation in the most professional way, while also bringing an energy and sincere interest in pursuing our mission. We would not have attained our current status without his efforts. He is ably supported in his role by Ms. Jessica Haxton (Grants Coordinator), Ms. Hylda Audisho (office assistant), Ms. Linda Cheng (accountant), and Ms. Raisa Bhuiyan (part-time office assistant).

I would also like to acknowledge the House of Delegates on whose behalf the Board of Directors functions. Their spirit and continued interest in the Foundation is what makes this organization unique.

As a final note, I would like to thank Dr. Fred Boughen who was the Delegate from Muskoka from 1970 to 1992 for introducing me to this wonderful group. I have thoroughly enjoyed my years at the organization where I have been professionally stimulated while forming close bonds with colleagues. It has been a great pleasure and honour.

Respectfully submitted,



William D. Hemens, B.Sc., M.Sc., M.D., C.C.F.P., F.C.F.P.

March 28, 2014



2014 PSI GRAHAM FARQUHARSON KNOWLEDGE TRANSLATION FELLOWSHIP

"The PSI Graham Farquharson Knowledge Translation Fellowship has given me a tremendous opportunity to develop a research program in the non-invasive treatment of uterine fibroids. I want to thank the PSI foundation for supporting translational research and early career clinician scientists."

"Taking this technology from bench to bedside has the potential to positively impact the lives of women suffering from symptomatic fibroids and it also has the potential to decrease health care costs associated with the treatment of fibroids."

The PSI Foundation is pleased to announce Dr. Naana Afua Jumah of the Thunder Bay Regional Health Sciences Centre as the 2014 PSI Graham Farquharson KT Fellow. This Fellowship – valued at \$150,000 per year for two years – is intended to protect a new, promising clinician's research time, allowing the Fellow to undertake high impact translational research.

The Fellowship will allow Dr. Jumah to conduct translational research in the treatment of uterine fibroids with magnetic resonance guided focused ultrasound (MRgFUS). In Canada, menorrhagia and fibroids are the leading indication for hysterectomy. MRgFUS is a non-invasive method that could decrease the need for surgery. The Fellowship will allow Dr. Jumah to take this technology from a research platform into clinical practice where it can improve the quality of life of women with symptomatic fibroids, particularly those who live in rural and remote settings.

Dr. Jumah received her B.A.Sc. in Chemical Engineering from the University of Toronto, her D.Phil. in Medical Engineering from the University of Oxford as a Rhodes Scholar, her M.D. from Harvard University, and completed her residency in Obstetrics and Gynaecology at the University of Toronto. She is an Assistant Professor at the Northern Ontario School of Medicine and a clinician researcher at the Thunder Bay Regional Research Institute. In addition, she has sat on numerous boards and committees including serving as an advisory board member for the CIHR Institute of Nutrition, Metabolism and Diabetes and serving as a Governor on the University of Toronto Governing Council.

ORGANIZATION

PSI 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.

PSI's membership is composed of physicians representing each of the Ontario Medical Association's branch societies and six other persons appointed by the Board of Directors 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.

Finance and Grants Committees make recommendations to the Board of Directors on investment policy and granting programs respectively. Both Committees are largely composed of members of the Board of Directors.

An Executive Director, who is responsible to the Board, administers PSI's programs, as approved by 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 (P.S.I.) 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 due to 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

PSI 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, PSI must award grants to other 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 must provide 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.

PSI's granting interests focus on two areas - education of practising physicians and health research with emphasis on research relevant to patient care.

EDUCATION OF PRACTISING PHYSICIANS

This program is directed at physicians in established practice in Ontario, 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.

PSI GRAHAM FARQUHARSON KNOWLEDGE TRANSLATION FELLOWSHIP

Translational research aims at transitioning research discoveries to the real world to improve health outcomes. This prestigious Fellowship protects research time of a new, promising clinician, thereby allowing the Fellow the opportunity to pursue their research interests.

HEALTH RESEARCH

Within this broad category, PSI'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.

PSI offers funding in the following funding streams:

- Clinical Research
- Medical Education Research
- Health Systems Research
- 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, which 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 being a College of Physicians' and Surgeons licensed M.D. Applicants must possess an academic appointment, 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 applications, 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 will be for a maximum of two years. Except under unusual circumstances, PSI cannot consider applications for projects requiring more than \$85,000 per year.

NEW INVESTIGATOR

PSI implemented a New Investigator Funding Stream based on the existing Health Research Grant. This new funding stream offers applicants the ability to apply for three years of funding, as opposed to the standard two years, and a total amount of \$250,000 (maximum of \$100,000 in any one year). This funding stream is only available to those investigators within the first 5 years of his or her first academic appointment.

RESIDENT RESEARCH

Medical research being undertaken by a resident will be considered if the project is supervised by a physician with an academic appointment. A resident project's maximum duration is two years, with a maximum amount of \$20,000.

The maximum annual amount for total approvals for this funding stream is \$300,000. These applications are in competition with all others, thus the maximum amount awarded could obviously be less.

Proposals within this funding program must have been largely developed by the resident. The majority of the work involved in completing the research must be done by the resident.

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 PSI 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

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

HEALTH SYSTEMS RESEARCH

Projects focusing 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.

Applications 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 practise 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 \$500 will be provided for travel costs incurred in presenting papers on the results of a community practice study.

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
- Systematic reviews and meta-analyses
- Operating costs of any organization or department
- Budget deficits
- Service programs
- Ongoing research
- Major equipment, unless required for a research project being supported by the Foundation
- Projects outside the Province of Ontario
- Films, books and journals.

PSI 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, PSI 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 fit within PSI's interests or policies, please contact the Executive Director or Grants Coordinator for assistance.

GRANTING ACTIVITIES – 2014

- 230 applications received with a total value of \$21,081,500, compared to 284 applications totalling \$23,859,000 in 2013.
- \$4,266,444.49 in new grants were approved in 2014.
- \$3,903,148 in granting dollars were paid in 2014 (net of refunds).
- Grants commitments totalled \$5,026,800 at January 1st, 2014 and \$5,215,300 at December 31st, 2014.

HEALTH EDUCATION

EDUCATIONAL FELLOWSHIPS FOR PRACTISING PHYSICIANS

No grants awarded under this program in 2014.

HEALTH SYSTEMS RESEARCH

2 grants totalling \$83,000.

PERCEPTIONS OF PHYSICIANS ON THE ADOPTION OF A PALLIATIVE CARE APPROACH IN PATIENTS WITH COPD

Dr. Mino Riad Mitri (resident), Dr. Ingrid Harle (supervisor), Queen's University

Chronic Obstructive Pulmonary Disease (COPD) is an incurable chronic disease of the lung that is associated with high rates of death. Patients suffering from COPD are not commonly treated with a palliative care approach despite the need for this approach in this patient population. The purpose of this research is to understand the extent to which doctors use a palliative care approach in patients with COPD. The objective is to answer the following questions: 1) What are the approaches physicians adopt when caring for patients with COPD? 2) What conditions have influenced the adoption of a palliative care approach?

Research design will focus on capturing the mindset of the doctor when faced with a patient with COPD. Following clearance by the General Research Ethics Board, interview questions will be first tested out. Doctors from different specialties will be individually interviewed. After transcribing word for word the taped interviews, participants will be invited to review their responses; thereafter the data will be analyzed and evaluated. Analyzing the data will require finding patterns and common themes in the responses of the participants.

USING A NOVEL QUALITY METRIC APPROACH TO EXAMINE THE HEALTHCARE UTILIZATION OF POST-MASTECTOMY BREAST RECONSTRUCTION: A POPULATION-BASED STUDY

Dr. Amanda Roberts, Dr. Toni Zhong, University Health Network

Post-mastectomy breast reconstruction (PMBR) aims to surgically restore a breast mound following mastectomy; however it can result in additional anticipated or unanticipated re-operations. In North America, efforts to improve surgical quality have focused on reducing complications and readmissions related to surgical care. Unanticipated re-operations can negatively impact both of these quality targets. Current literature does not define or adequately measure unanticipated reoperations following PMBR; therefore the aim of this study is to first develop an accepted definition and compile a list of unanticipated reoperations through expert consensus, and then use this newly developed quality metric to evaluate population-based patterns of unanticipated PMBR re-operations in Ontario over the last decade.

By creating a novel quality metric for PMBR, this research will improve our knowledge of PMBR surgical healthcare with the aim to reduce these unnecessary re-operations, improve healthcare quality, decrease healthcare and societal costs, and increase the quality of life for patients undergoing PMBR.

RESEARCH BY COMMUNITY PHYSICIANS

2 grants totalling \$10,500.

TRENDS IN *C. DIFFICILE* INFECTION FREQUENCY, SEVERITY AND LENGTH OF STAY AFTER IMPLEMENTATION OF AN ANTIMICROBIAL STEWARDSHIP PROGRAM AND *C. DIFFICILE* TOOLKIT AT A LARGE, COMMUNITY HOSPITAL

Dr. Daniel Ricciuto, Lakeridge Health

KNOWLEDGE EXTRACTION FROM A COMMUNITY HOSPITAL EHR TO IMPROVE ANESTHETIC PATIENT CARE

Dr. Sanjeev Singwi, Headwaters Health Care Centre

MEDICAL EDUCATION RESEARCH

3 grants totalling \$43,500; a selection is highlighted below.

ASSESSING PERSONALITY TRAITS OF SURGICAL TRAINEES TO PREDICT NON-TECHNICAL AND CRISIS MANAGEMENT SKILLS IN THE OPERATING ROOM

Dr. Teodor P. Grantcharov, St. Michael's Hospital

Non-technical skills such as teamwork, communication and leadership are competencies required of surgeons that have been shown to be critical for patient safety in the operating room. Despite the demonstrated importance, non-technical skills are still infrequently addressed in surgical residency programs, which is in part owing to the substantial cost and expenditure of time associated with designated training and assessment of these competencies. In addition, studies have shown pronounced inter-individual differences in “innate” non-technical skills, challenging the concept of a “one-fits-all” approach to training.

If trainees’ innate non-technical skills could be predicted at the start of surgical residency, training could be tailored to individual needs. The proposed study is based on the hypothesis that certain measurable personality traits can predict a surgeon’s non-technical skills. To test this hypothesis, video recordings of surgical residents in simulated crisis scenarios will be reviewed by trained observers and scored on a validated rating framework of non-technical skills. Non-technical skills scores of the participants will be correlated with the participants’ personality scores on five specific domains.

If personality traits can predict non-technical performance, a simple test could help to identify individual training needs and deficiencies in performance, and thereby optimize educational benefit and economize the budgets of surgical residency programs in Ontario.

THE DEVELOPMENT OF FEASIBLE, RELIABLE AND VALID IN-TRAINING MILESTONES AS A MEANS TO ASSESS TECHNICAL AND NON-TECHNICAL COMPETENCE IN GENERAL SURGERY TRAINEES

Dr. Peter Szasz (resident), Dr. Teodor Grantcharov (supervisor), St. Michael's Hospital

At the completion of surgical residency training, the Royal College of Physicians and Surgeons of Canada (RCPSC) examines residents by a multiple-choice examination and an oral examination and determines whether they are adequately trained in knowledge and judgment to enter the workforce as independent practitioners. Although knowledge and judgment are also assessed during residency on a yearly basis, technical performance and non-technical performance (i.e. communication, teamwork, professionalism) are never objectively assessed at the completion of training, or more importantly on a yearly basis, where performance deficits can still be remedied.

More recently, there has been a push from various governing bodies to assess these two competencies during training, both of which are imperative to becoming an independent practitioner. The goal of this research is thus to develop valid, reliable and feasible objective performance benchmarks (both technical and non-technical). These benchmarks will then need to be completed at certain time intervals (similar to assessments of knowledge and judgment) in order for residents to progress in their surgical residency training and eventually be eligible for their final RCPSC examinations.

CLINICAL RESEARCH

40 grants totalling \$3,524,000; a selection is highlighted below.

REVISE: RE-EVALUATING THE INHIBITION OF STRESS EROSIONS: GASTROINTESTINAL BLEEDING PROPHYLAXIS IN ICU

Dr. Waleed Alhazzani, McMaster University

This study of critically ill patients will examine the effects of acid suppression on bleeding from the stomach. Acid suppression is prescribed for almost all critically ill patients based on research done 10-20 years ago showing a clear reduction in bleeding; however today, grave concerns exist about whether these drugs still prevent bleeding, whether they are cost-ineffective, and whether they cause harm such as lung infection (pneumonia), or serious bowel infection (*Clostridium difficile*).

The investigators will enroll patients who are connected to a breathing machine. The patients will be divided into 2 groups. The first will receive a medication (pantoprazole) that reduces the acid levels in the stomach; the second group will receive an identical medication with no effect on acid levels. This approach will keep everyone unaware of the treatment received, to avoid inaccurate results when examining the outcomes.

In this pilot trial, the researchers will gain crucial experience obtaining informed consent, enrolling patients efficiently, and ensuring they receive their study drug. Lessons learned from this feasibility study will help to prepare a large trial to evaluate whether widespread acid suppression in critically ill patients is beneficial, has no effect, or is harmful.

FEASIBILITY OF SPECULAR MICROSCOPY IN A PEDIATRIC POPULATION

Dr. Asim Ali, Hospital for Sick Children

Corneal endothelial cells are vital to maintain clarity of the cornea and preserve normal vision. As they do not proliferate, they cannot regenerate in response to damage from disease and from surgery. Their loss eventually can lead to edema and severe vision impairment, with greatest impact in childhood when the visual system is immature. Imaging of the corneal endothelial cell layer using specular microscopy first became available in 1976. Then and now, it requires immobility of the eye during measurement and therefore cannot be performed in young children. As such, there is a paucity of in vivo studies investigating the corneal endothelium in this population.

This team has developed a technique to image children under general anesthesia at any age. This will enable for the first time the establishment of normal ranges for endothelial cell density in children under the age of 5 and to determine the endothelial changes that occur in a variety of ocular disorders and following intraocular surgery.

This project will help define the natural history of the developing endothelium, improve diagnostic tools for children with endothelial diseases and potentially find ways to prevent corneal blindness and therefore reduce the need for corneal transplants in later life.

DISTAL RADIUS FRACTURE CARE IN THE PROVINCE OF ONTARIO: FACTORS IMPACTING MANAGEMENT

Dr. Kathleen Armstrong (resident), Dr. Steve McCabe (supervisor), University of Toronto

The distal radius bone of the wrist is the most common fracture site in adults. Approximately 8,000 wrist fractures occur annually in Ontario, most commonly in older women. This type of fracture will become more common and

the outcome more important as Canada's aging population desires higher levels of physical function. Wrist fractures can be managed non-surgically with cast immobilization or surgically with cast immobilization and percutaneous pinning, external fixation, or with open reduction and internal fixation (ORIF). These types of surgical management are listed in order from least to most invasive.

At least amongst the population 60 and older with unstable distal radius fractures, systematic review has not shown any clinically significant functional advantage when non-surgical and surgical treatments are compared. ORIF does hasten the recovery period; however this comes at the cost of an increased complication rate.

A trend towards ORIF management of wrist fractures has emerged in multiple other countries including the United States with a potential to impact patient outcomes and healthcare system costs. This study will examine whether similar trends exist over a ten-year period in Ontario. The researchers will determine the temporal, geographical, physician and patient factors that are associated with the treatment of wrist fractures.

THE IMPACT OF EXERCISE ON VASCULAR REMODELING, ARTERIOVENOUS FISTULA CREATION AND USE IN PATIENTS WITH CHRONIC KIDNEY DISEASE: A RANDOMIZED CONTROLLED TRIAL

Dr. Christopher Chan, Dr. Charmaine Lok, University Health Network

Chronic kidney disease (CKD) patients often require life-sustaining hemodialysis. To enable hemodialysis blood must be removed from the body, preferably via a surgically created forearm conduit, called an arteriovenous fistula (fistula). Fistulas are the preferred conduit due to their low complications, however in some patients inadequate blood flow through the fistula causes the fistula to fail after surgery, meaning it cannot be used for dialysis.

Exercising the forearm before surgery may make blood vessels bigger and healthier, simplifying surgery, improving blood flow and reducing chances of fistula failure; however exercise is not routinely prescribed before surgery because the benefit is unclear. This study aims to evaluate whether progressive forearm exercise prior to fistula creation will increase the size and health of the blood vessels, enhance fistula blood flow after surgery (assessed by ultrasound), and reduce fistula failure.

The intervention is a personalized progressive exercise protocol (30 minutes daily for eight weeks) and will consider the quality (health) of patients' blood vessels at study entry, assess fistula blood flow adequacy for hemodialysis, and determine the proportion of fistulae successfully used for dialysis. This is the first study to determine the clinical benefit of forearm exercise for fistula creation and use.

HYPOXIC-ISCHEMIC SERVICE UTILIZATION

Dr. Nora Cullen, Dr. Angela Colantonio, Toronto Rehabilitation Institute

Hypoxic-ischemic brain injury (HIBI) refers to brain damage from oxygen reduction or diminished blood supply. Common causes of HIBI include cardiac arrest, near drowning, carbon monoxide poisoning, and asphyxia. It is a devastating injury that leads to significant long-term disability. Currently, there are no population-based data on the demographic profile of patients with HIBI or their path through the healthcare system. This makes it difficult to appropriately plan health services that tailor to this group of patients.

The proposed study will use administrative data to determine the clinical profile and health service utilization of Ontario adults with a diagnosis of HIBI. Patients with HIBI will be identified in four main healthcare settings (emergency department, acute care hospital, rehabilitation, and outpatient physician visits). Discharge destination from each setting will be used to track the patient pathway through the healthcare system. Other important measures of service utilization include length of stay in each health care setting and number/type of outpatient physician visits in the first year following injury.

Findings from this project can assist planning of services across the continuum of care for this population, inform public policy, and help direct healthcare costs to best address the needs of patients with HIBI.

RAPID AND COMPREHENSIVE DIAGNOSTIC SEQUENCING FOR RARE, GENETIC DISEASE IN THE CRITICALLY ILL NEWBORN

Dr. David Alexandre Dymont, University of Ottawa

The goal of this project is to improve healthcare delivery in the Neonatal Intensive Care Unit (NICU) by providing accurate and timely diagnoses to critically ill newborns. The investigators will apply next generation sequencing (NGS) to neonates and sequence the genes associated with genetic disease, known as the “clinome,” and return results to care providers in 1-2 weeks or less.

It is expected the quality and efficiency of a neonate’s work-up to be improved with respect to the number of children attaining a molecular diagnosis, the time to that diagnosis, and the overall cost-effectiveness. Clinome sequencing will also provide an opportunity to perform descriptive studies to assess the experiences of families and physicians with this new technology in the context of the NICU. If successful, there is a potential that clinome sequencing can be part of the front-line genetic investigations in the NICU – similar to the genomic microarray routinely offered to complex patients today.

The outcome of this study may have a significant impact on the how we provide care. For Ontario there is an opportunity to develop a leadership role in the translation of NGS to the NICU as this is not offered on a clinical basis in Canada.

LOOP-MEDIATED ISOTHERMAL AMPLIFICATION: A NOVEL MOLECULAR METHOD FOR SIMULTANEOUS DETECTION OF COMMON PATHOGENS IN PEDIATRIC EMPYEMA

Dr. Lei Jiao (resident), Dr. Jeffrey Pernica (supervisor), McMaster University

Pleural empyema is a suppurative infection of the pleural space which complicates 3-5% of pneumonia in hospitalized children. It is well appreciated that timely antibiotic therapy combined with complete drainage are critical in empyema management; however current conventional culture methods are not only time and labor-consuming, but also bear high false-negative rate.

The overall objective of the present study is to develop a rapid and novel molecular method with high sensitivity and specificity via the multiplex loop-mediated isothermal amplification assay (LAMP) to simultaneously identify common pathogens in pediatric empyema. The target pathogens include *Streptococcus pneumoniae*, *Streptococcus pyogenes*, *Streptococcus anginosus*, and *Staphylococcus aureus*, both methicillin-susceptible and methicillin-resistant.

The investigators’ hypothesize that this molecular test which employs LAMP improves patient care cost effectively by the rapid detection of common pathogens in pediatric empyema with high sensitivity and specificity. This LAMP method offers significant advantages over PCR and conventional microbiology methods for diagnosis in clinical settings. Currently there is no comparable commercial test or any in-house tests published adopting this technology for pediatric empyema.

PREGABALIN AND LIDOCAINE IN BREAST SURGERY TO ALTER NEUROPATHIC PAIN (PLAN): A PILOT STUDY

Dr. James Khan (resident), Dr. Stephen Choi (supervisor), Sunnybrook Health Sciences Centre

Post-mastectomy pain syndrome (PMPS) is a neuropathic pain syndrome that develops after breast cancer surgery. Surgery is an integral component in the management of breast cancer and it is estimated that up to 65% of those who underwent breast cancer surgery will suffer from PMPS. The pain syndrome is refractory to conventional therapies and can persist for several decades. Administering an infusion of lidocaine during the initial breast cancer surgery has emerged as a possible intervention to prevent the development of PMPS; furthermore patients taking pregabalin during the time of their surgery have been shown to have significantly decreased rates of chronic pain associated with their surgery.

The objective of this study is to determine whether an infusion of lidocaine during surgery and pregabalin given around the time of surgery can reduce PMPS after breast cancer surgery. This pilot study will also aim to inform

the feasibility of a larger, multicenter study. A factorial randomized controlled trial design will be used to assess these two interventions. Patients, healthcare providers, data collectors, and analysts will be blinded to group allocation. Patients will be followed up at 3 and 6 months after surgery to determine the incidence of PMPS.

A RANDOMIZED DOUBLE-BLINDED TRIAL COMPARING FESOTERODINE TO DESMOPRESSIN IN THE TREATMENT OF SEVERE NOCTURIA IN WOMEN AGED 65 AND OLDER

Dr. Yvonne Leong, Dr. Harold P. Drutz, Mount Sinai Hospital

Nocturia, or voiding at night, is an extremely troublesome symptom which is highly prevalent in the elderly. Desmopressin is a treatment for nocturia but it can result in hyponatremia (low blood sodium), particularly in those aged 65 and older. Fesoterodine is used for the treatment of overactive bladder (OAB) and recent trials showed it was effective in reducing nocturia.

The aim of this study is to answer the following: In women 65 and older with severe nocturia, is Fesoterodine more effective than Desmopressin in reducing the number of night time voids? Does Fesoterodine have a better side effect profile compared to Desmopressin? The study design is a 12-week randomized double-blinded trial of Fesoterodine and Desmopressin in the treatment of severe nocturia in women aged 65 and older. This will be conducted at the Urogynecology Unit at Mount Sinai Hospital (MSH) and Baycrest. A 3 day voiding diary and Nocturia, Nocturnal Enuresis and Sleep-interruption Questionnaire (NNES-Q) will be completed at baseline and at week 12.

The primary outcome will be the number of night time voids in the Fesoterodine group compared to the Desmopressin group, 12 weeks after starting treatment. Secondary outcomes include changes in the NNES-Q scores and the safety of each medication.

REHABILITATION OF THE LIGAMENT-DEFICIENT ELBOW: A BIOMECHANICAL STUDY

Dr. Ranita Harpreet Manocha (resident), Dr. Graham J.W. King (supervisor), Western University

The elbow is the second most commonly dislocated joint. Dislocations can result in injuries to one or both of the elbow's ligaments. Ligament injuries can also occur with fractures and chronic overuse, as is common in throwing athletes such as baseball pitchers. Following ligamentous elbow injury, motion must be restricted to prevent recurrent instability and to allow for optimal ligament healing; however if immobilized, the elbow is prone to developing stiffness, which can be functionally disabling.

There is little biomechanical evidence guiding the rehabilitation of the unstable elbow. Using cadaveric specimens and a well-established upper limb motion simulator that both generates and measures joint movement, the aim of this study is to compare common rehabilitation protocols used in elbow instability. Three clinical scenarios will be examined: lateral collateral ligament (LCL) injury, medial collateral ligament (MCL) injury, and combined LCL and MCL injury. The effects of forearm rotation, muscle activation, and arm positioning during typical exercises will be studied. A hinged elbow brace, often prescribed for these injuries, will also be evaluated to determine whether these costly devices improve stability.

This study will help guide physicians and therapists in prescribing safe exercises and adequate braces in the rehabilitation of the unstable elbow.

RISK OF PULMONARY NONTUBERCULOUS MYCOBACTERIAL DISEASE ASSOCIATED WITH INHALED CORTICOSTEROIDS IN ONTARIO

Dr. Theodore Marras, University Health Network

Inhaled steroids are widely used medications for treating chronic obstructive pulmonary disease (COPD) and asthma, two very common lung conditions. Recent studies showed that inhaled steroids increase the risk of pneumonia and tuberculosis (TB) in people with COPD. It is unclear if inhaled steroids also increase the risk of nontuberculous mycobacteria (NTM) lung infections. NTM cause serious, chronic, and difficult to treat lung

infections, which are more common in Ontario than TB.

In this study, the researchers will determine if using inhaled steroids increases the risk of NTM lung infections in older Ontarians with COPD and asthma, and measure this risk. Information from Ontario's main NTM laboratory (results from Ontarians with NTM germs identified), and the Ontario Health Insurance Plan (OHIP; for inhaled steroid prescription records) will be combined. To learn if inhaled steroids are a risk factor for NTM lung infections, rates of NTM lung infection between Ontarians who do versus Ontarians who do not use inhaled steroids will be compared.

This project will be the largest study of this problem and the first Canadian study. The results will help doctors make better decisions about screening and treatment for NTM when prescribing inhaled steroids, and help patients better understand potential harms from these drugs.

COMPARISON OF THE EFFECTS OF PERINEURAL VERSUS SYSTEMIC DEXAMETHASONE ON LOW DOSE INTERSCALENE BRACHIAL PLEXUS BLOCK: A RANDOMIZED TRIAL

Dr. Paul McHardy, Dr. Stephen Choi, Sunnybrook Health Sciences Centre

Shoulder surgery is painful regardless of arthroscopic or open surgical technique. Prior to the use of interscalene brachial plexus nerve block (ISB), patients required postoperative admission and treatment with strong intravenous opioids such as morphine. This can have negative side effects including dose dependent respiratory depression, worsened obstructive sleep apnea, sedation, nausea, and vomiting.

ISB provides superior analgesia and reduced opioid consumption. The analgesic and opioid sparing effects of ISB facilitate ambulatory shoulder surgery such that it is standard of care. ISB wears off, typically after 12 to 16 hours, unmasking the moderate to severe pain of the surgical insult. Efforts to prolong the analgesic duration of ISB include placement of indwelling catheters or combining perineural medications, most commonly the corticosteroid dexamethasone, with local anesthetic for single injection ISB. The use of indwelling catheters is limited because of technical challenge with placement, or patients being geographically remote from managing centres.

Several studies have demonstrated that perineural dexamethasone significantly prolongs the duration of ISB (~50%). None have compared perineural to systemic dexamethasone (frequently used for the treatment of postoperative nausea). This will be the first study to compare both modes of dexamethasone administration in the context of low dose ISB.

INTESTINAL MICROBIOTA, BILE ACIDS AND NON-ALCOHOLIC FATTY LIVER DISEASE: IS THERE A LINK?

Dr. Marialena Mouzaki, Hospital for Sick Children

Fatty liver is the most common liver disease affecting children and adults and is associated with obesity. It is not exactly known why fatty liver happens, how or why it progresses. Some people need a liver transplant to recover from severe fatty liver disease.

The investigators' previous research suggested that gut bacteria may play a role in the development of fatty liver. These bacteria can affect appetite, increase the amount of calories people get from their diets and change the way fat is used by the liver. Bacteria can also change the way bile salts are recycled in the body. Bile salts are produced in the liver. They are important for fat digestion but also play a role in the way the liver processes its fat. Bile salts are also able to influence inflammation. The majority of the bile salts in the body are recycled; however gut bacteria can disrupt this recycling and lead to bile acid losses in the stool. This can potentially lead to increased fat and inflammation in the liver.

The goal of this study is to understand the role that intestinal bacteria and bile acids play in the development and progression of fatty liver disease in children.

PREDICTORS OF APNEA AND THEIR RELATIONSHIP TO TIME TO DEATH FOLLOWING WITHDRAWAL OF LIFE SUSTAINING THERAPY FOR DONATION AFTER CARDIAC DEATH CANDIDATES

Dr. Jeffrey Singh, Dr. Laveena Munshi, University Health Network

Organ donation is a life-saving treatment for hundreds of individuals with terminal diseases. Advances in care have increased the number of people awaiting organ transplants. This growing wait list outstrips the number of available organ donors, and some people die while waiting for a transplant.

Donation after cardiac death (DCD) is a method that has expanded the pool of potential organ donors. The option of DCD is presented to substitute decision makers after the decision is made to withdraw life-sustaining therapy due to medical futility or previously expressed patient wishes/values. In DCD, organ procurement teams wait on standby during withdrawal of life support to see if organs will be able to be procured; however if the dying process is prolonged following withdrawal of life support, organs are not eligible for transplantation and the teams are dismissed. Consequently, predicting time to death is important (1) for accurate communication with families and (2) to ensure that resources are only committed to potential donors with a reasonable probability of successful procurement.

Using data collected by Trillium Gift of Life Network, the objective of this study is to create a novel prediction tool that will accurately predict time to death after withdrawal of life sustaining therapy.

EVALUATION OF AN INTERDISCIPLINARY COMPLEX PAIN MANAGEMENT PROGRAM LINKED TO PRIMARY CARE TO IMPROVE CLINICAL OUTCOMES AND REDUCE HEALTH CARE UTILIZATION AMONG PATIENTS WITH CHRONIC PAIN AND FREQUENT EMERGENCY DEPARTMENT VISITS

Dr. Catherine Smyth, Dr. Patricia Poulin, University of Ottawa

Chronic pain (CP) is a common illness with devastating impacts. Lack of community care and limited access to expertise can lead to frequent and costly emergency department (ED) visits and hospital admissions. More than 12% of all ED visits are for CP; clearly, patient needs are not being met by primary care physicians (PCP) or hospitals. Some patients with CP visit the ED more than 12 times per year (high frequency users; CP-HFU) and are admitted to hospital for long periods.

This study will test whether pain management provided by a specialized pain team, including the patient's PCP, leads to improved pain control and function in the community while reducing their use of acute care resources such as the ED. The study will compare pain, disability, ED visits and days spent in hospital in CP-HFU that have immediate access to an Interdisciplinary Complex Pain Management Program (ICPMP) to those with a 3-month wait after referral. ICPMP will be evaluated from the point of view of all stakeholders.

It is expected that CP-HFU will improve in many domains. Savings through reduced ED visits and hospital admissions will recoup the cost of ICPMP resulting in improved health care value

THE ROLE OF ADIPOSE DERIVED STEM CELLS FOR REVERSAL OF RADIATION FIBROSIS

Dr. Xiao Zhao (resident), Dr. Fei-Fei Liu (supervisor), Princess Margaret Hospital

Radiotherapy is effective for the treatment of head and neck tumors but has significant side effects. Nearly all patients with radiation treatment to the head and neck develop a fibrosis scar, termed radiation fibrosis, which can significantly impact their quality of life. The process of radiation fibrosis appears months to years after treatment and is often irreversible. The mechanism behind radiation fibrosis involves cell death and dysfunction, lack of blood flow and oxygen to the radiation site, and persistent inflammation.

Recent evidence has shown that fat tissue is host to a population of stem cells which has the ability to improve blood vessel formation and oxygen delivery while decreasing scar formation and inflammation. The study objective is to harness the potential of these fat-derived stem cells to repair fibrosis damage caused by radiation injury. Using a combination of a radiation fibrosis animal model and high throughput gene, protein, and metabolic analysis, the researchers hope to determine the therapeutic effect of transplanting fat-derived stem cells into radiation fibrosis tissue.

FINANCIAL REPORT

2014 OVERVIEW

- Original investment by the doctors of Ontario: \$16.7 million in 1970
- Market value of assets as of December 31, 2014: \$99.2 million before accruing future grant commitments (2013 - (restated)\$93.5 million)
- Increase in value of assets over prior year \$5.7 million (2013 - \$15.9 million)
- Rate of return on investments approximately 12% consisting of 2.7% from dividends and interest plus 9.3% from an increase in market value of investments (2013 - 20.4%)
- Grants approved in 2014 \$4.3 million before refunds and withdrawals (2013 - \$4.3 million)
- Total grants paid since inception \$122.5 million
- Future grant commitments at 2014 year end: \$5.2 million, with \$3.6 million payable in 2014 and \$1.6 million payable in 2015 (2013 - \$5.0 million, with \$3.4 million payable in 2014 and \$1.6 million payable in 2015)
- Operating costs including investment management fees: \$1.5 million (2013 - \$1.5 million)
- Operating costs as a percentage of assets under management: 1.6% (2013 – 1.6%)
- Assets allocation at year end:

	<u>2014</u>	<u>2013</u>
Canadian bonds	3%	5%
Canadian equities	48	49
U.S. equities and International equities	41	41
Cash	8	5
	<u>100%</u>	<u>100%</u>

2014 IN DETAIL

It is my pleasure to present the PSI Foundation financial results for the year ended December 31, 2014. Although the market benchmarks did not repeat their 2013 increase, our portfolio still managed a 12% return. This is result of our heavy weighting toward equities. We also benefited from the strength of the US dollar. We continue to monitor the fixed income market and plan to move to a more traditional asset allocation when the risk to reward ratio of fixed income securities returns to “normal” levels.

Much of our portfolio is focused on blue chip securities paying strong dividends. We are expecting the Canadian dollar to stay at its current level relative to the US dollar for much of 2015 and we are not expecting the equity markets, particularly in the US, which is at record levels, to continue with this rate of growth in 2015. Early results from 2015 show our portfolio exceeded the \$100 million threshold for the first time.

During 2014, the Foundation acquired an office condo at Sheppard Avenue and Yonge Street in Toronto. In addition to providing long term office space for the Foundation, we also view this as a small real estate investment.

Our US equity manager, Neuberger Berman, took the \$37.9 million portfolio at December 31, 2013 and grew it to \$40.1 million, a return of only 5.3%, in terms of US dollars compared to an increase of 13.7% in the S&P 500 index, but we benefitted from the weakness in the Canadian dollar. We used \$2.9 million (Canadian) from this account to finance our programs in 2014.

On the Canadian equity side, the TSX posted a 10.5% gain in 2014. Connor Clark & Lunn’s strong yielding portfolio returned 14.7% and grew from \$23.6 million to \$25.5 million after withdrawals of \$1.6 million. Magna Vista returned 8.6% with a conservative blue chip portfolio which grew from \$25.1 million to \$25.5 million but provided \$1.45 million in funds for our programs. Our two Canadian equity portfolios complement each other, with very little overlap in their holdings.

We have increased our cash holdings with Beutel Goodman from \$5.8 million in 2013 to \$8.5 million. It provided a return of 1.3%, up from 1% in 2013. This is a portfolio of cash and short term bonds, in order to keep the lines of communication open with Beutel Goodman, our fixed income manager.

We have budgeted \$4.5 million for new grant approval for 2015, the same as the 2014 budgeted figure. We have tried to set an annual grants figure which will be sustainable for the Foundation in the future. The Finance Committee has also indicated to the Grants Committee, they could request further funding if they feel the need, based on the applications reviewed.

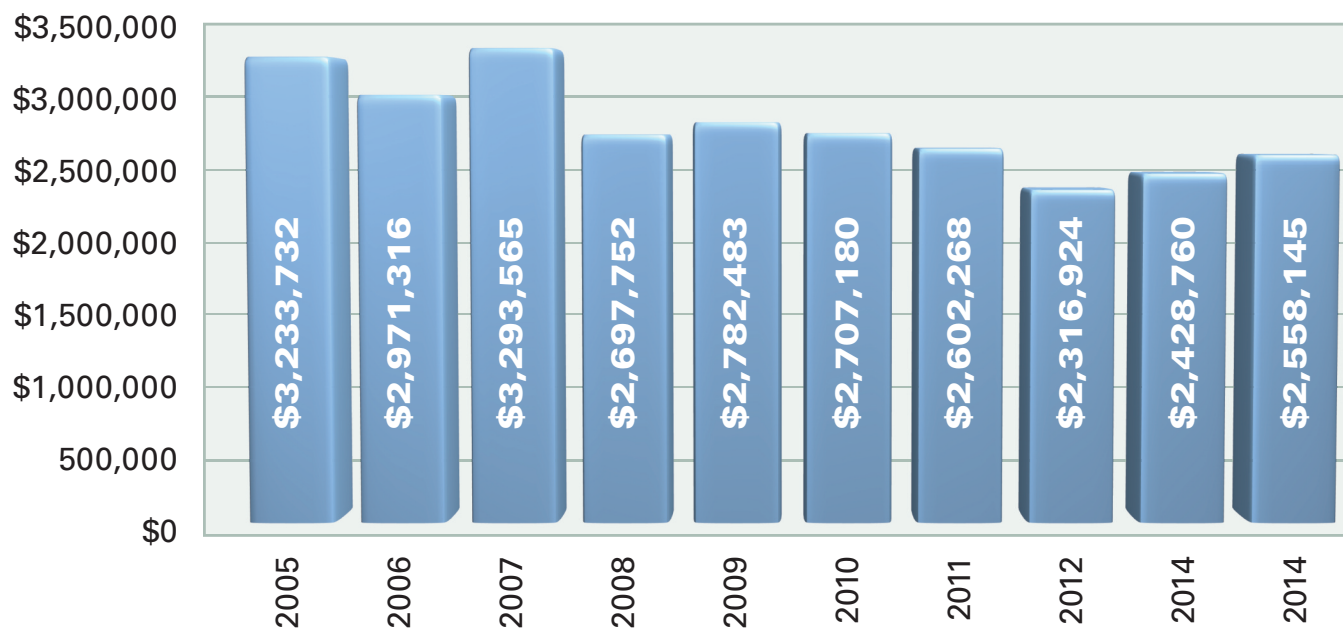
PSI FOUNDATION

FINANCIAL SUMMARY

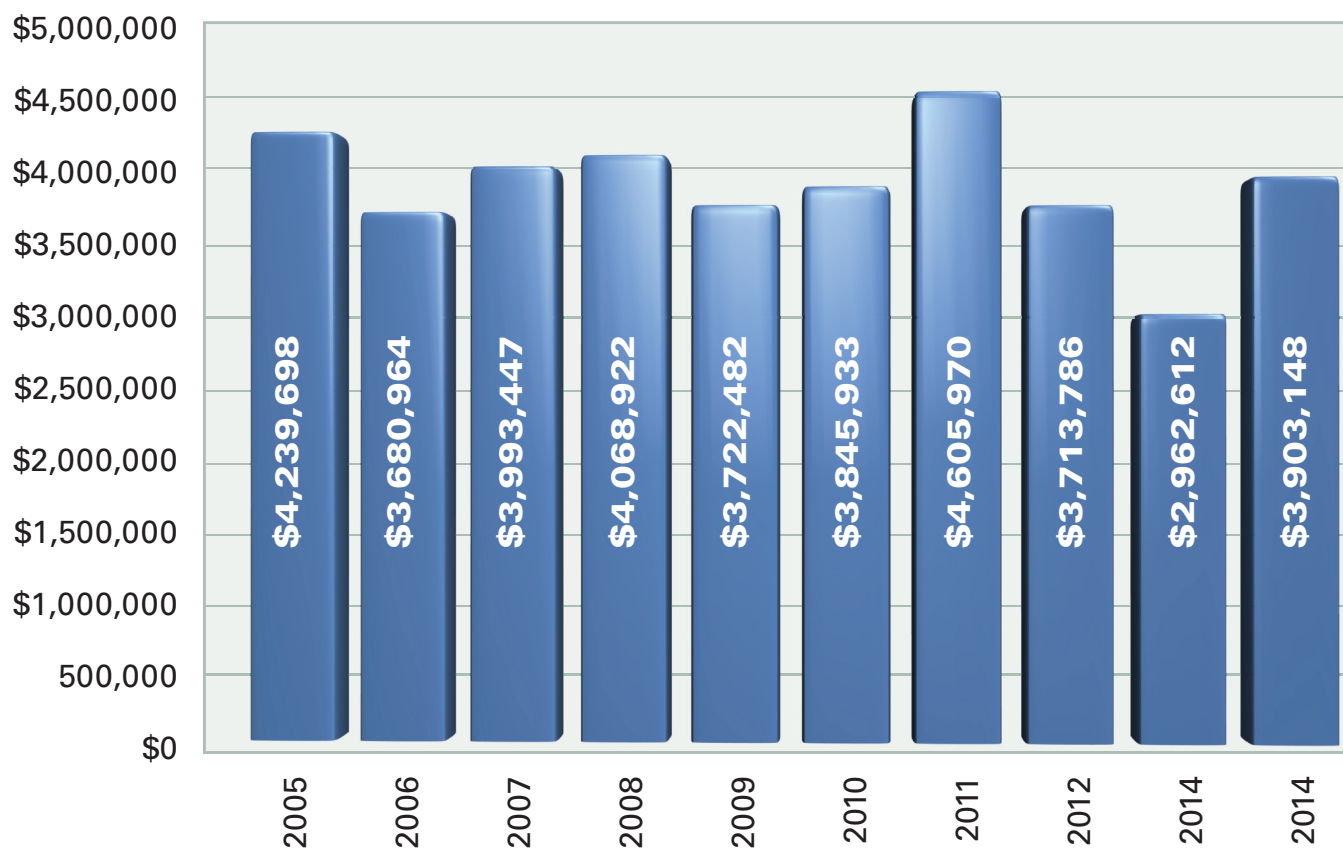
1970 - 2014

Donated Capital		\$ 16,693,123
Plus Capital appreciation	\$ 111,258,169	
Revenue earned	118,700,530	229,958,699
		<hr/>
		246,651,822
Less: Charitable contributions	\$ 122,501,564	
Investment & administrative expense	29,905,093	152,406,657
		<hr/>
Net assets, December 31, 2014		93,873,652
Net assets, December 31, 2013		88,395,048
Increase for year		\$ 5,478,604
		<hr/>
Consisting of:		
Deficit for year		(3,059,897)
Capital appreciation on investments		8,532,999
		<hr/>
		\$ 5,473,102
		<hr/>

REVENUE 2004 - 2014



GRANTS PAID 2004 - 2014





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, 2014, the statements of operations, 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 accounting standards for not-for-profit organizations, 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 institute'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, 2014, and its results of operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

A handwritten signature in black ink that reads 'KPMG LLP' with a horizontal line underneath.

Chartered Professional Accountants, Licensed Public Accountants

Toronto, Canada

February 27, 2015

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Statement of Financial Position

December 31, 2014, with comparative information for 2013

	2014	2013 (Restated - note 2)
Assets		
Cash and cash equivalents (note 3)	\$ 8,276,950	\$ 4,829,042
Bonds and debentures (note 4)	2,937,957	4,993,290
Shares (note 4)	86,847,972	83,450,385
Dividends and interest receivable	189,524	198,096
Harmonized sales tax receivable	39,746	35,290
Capital assets (note 5)	871,685	1,686
	\$ 99,163,834	\$ 93,507,789
Liabilities and Net Assets		
Liabilities:		
Accounts payable and accrued liabilities	\$ 74,882	\$ 85,941
Grants payable (note 7)	5,215,300	5,026,800
	5,290,182	5,112,741
Net assets:		
Unrestricted	—	(348,980)
Invested in capital assets	871,685	1,686
Internally restricted capital (note 8)	93,001,967	88,742,342
	93,873,652	88,395,048
Lease commitments (note 9)		
	\$ 99,163,834	\$ 93,507,789

See accompanying notes to financial statements.

On behalf of the Board:

_____ Director

_____ Director

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Statement of Operations

Year ended December 31, 2014, with comparative information for 2013

	2014	2013 (Restated - note 2)
Revenue:		
Interest on bonds and debentures	\$ 210,529	\$ 257,690
Dividends	2,347,616	2,171,070
	2,558,145	2,428,760
Expenses:		
Investment management fees	722,540	627,253
	1,835,605	1,801,507
Administrative:		
Salaries and benefits	426,127	417,575
Board and committee	132,814	139,290
Office supplies	78,295	70,591
Rent and maintenance	74,164	76,375
Safekeeping charges	48,978	45,314
Legal and audit fees	19,600	20,050
Delegate and annual meeting	19,189	14,143
Information services and annual report	3,000	14,676
Amortization of capital assets	1,686	1,686
Referees' fees	—	69,493
	803,853	869,193
Grants	4,091,648	4,032,112
	4,895,501	4,901,305
Excess of expenses over revenue before the undernoted	(3,059,896)	(3,099,798)
Other income:		
Realized gain on sale of investments	6,433,414	3,651,766
Unrealized gain on investments	2,099,586	14,293,690
	8,533,000	17,945,456
Excess of revenue over expenses	\$ 5,473,104	\$ 14,845,658

See accompanying notes to financial statements.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Statement of Changes in Net Assets

Year ended December 31, 2014, with comparative information for 2013

	2014				2013
	Invested in capital assets	Internally restricted capital	Unrestricted	Total	Total (Restated - note 2)
Balance, beginning of year	\$ 1,686	\$ 88,742,342	\$ (348,980)	\$ 88,395,048	\$ 73,649,690
Excess (deficiency) of revenue over expenses	(1,686)	—	5,474,790	5,473,104	14,845,658
Investment in capital assets	871,685	(871,685)	—	—	—
Remeasurement and other items	—	—	5,500	5,500	(100,300)
Internally restricted capital (note 8)	—	5,131,310	(5,131,310)	—	—
Balance, end of year	\$ 871,685	\$ 93,001,967	\$ —	\$ 93,873,652	\$ 88,395,048

See accompanying notes to financial statements.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Statement of Cash Flows

Year ended December 31, 2014, with comparative information for 2013

	2014	2013
Cash provided by (used in):		
Operating activities:		
Cash received from:		
Investment income	\$ 2,622,308	\$ 2,530,377
Grant refunds	174,796	275,388
Harmonized sales tax received	35,290	35,100
Donations	21,582	—
	2,853,976	2,840,865
Cash applied to:		
Administrative expenses	1,535,776	1,465,914
Grants paid	4,077,944	3,238,000
Purchase of capital assets	871,685	—
Pension contributions	38,600	67,036
	6,524,005	4,770,950
	(3,670,029)	(1,930,085)
Investing activities:		
Cash received from proceeds of investments:		
Bonds and debentures	3,812,682	3,696,802
Magna Vista Investment Management Equities	3,646,395	13,147,939
Connor, Clark & Lunn Investment		
Management Ltd. Equities	13,226,892	13,027,829
Scotia iTrade Equities	1,973,629	4,009,731
Neuberger Berman, LLP Equities	9,530,135	5,582,394
	32,189,733	39,464,695
Cash applied to purchase of investments:		
Bonds and debentures	1,856,648	3,222,768
Magna Vista Investment Management Equities	2,978,175	2,631,667
Connor, Clark & Lunn Investment		
Management Ltd. Equities	12,762,837	22,521,211
Scotia iTrade Equities	558,076	1,090,710
Neuberger Berman, LLP Equities	6,916,060	6,027,763
	25,071,796	35,494,119
	7,117,937	3,970,576
Increase in cash and cash equivalents	3,447,908	2,040,491
Cash and cash equivalents, beginning of year	4,829,042	2,788,551
Cash and cash equivalents, end of year	\$ 8,276,950	\$ 4,829,042
Cash and cash equivalents on hand represented by:		
Canadian dollars	\$ 7,211,261	\$ 3,155,841
U.S. dollars	1,065,689	1,673,201
	\$ 8,276,950	\$ 4,829,042

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements

Year ended December 31, 2014

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:

These financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations in Part III of the Chartered Professional Accountants of Canada ("CPA Canada") Handbook.

(a) Revenue recognition:

Investment income which consists of dividends, interest, realized and unrealized gains and losses on investments is recognized on the accrual basis.

(b) Cash and cash equivalents:

Cash and cash equivalents include cash on hand and short-term investments, which are highly liquid with original maturities of less than three months.

(c) Financial instruments:

Financial instruments are recorded at fair value on initial recognition. Equity instruments that are quoted in an active market are subsequently measured at fair value. All other financial instruments are subsequently measured at cost or amortized cost, unless management has elected to carry the instruments at fair value. The Foundation has elected to carry its bonds and debentures at fair value.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs. These costs are amortized using the straight-line method.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

1. Significant accounting policies (continued):

Financial assets are assessed for impairment on an annual basis at the end of the fiscal year if there are indicators of impairment. If there is an indicator of impairment, the Foundation determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount the Foundation expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial carrying value.

(d) Foreign currency translation:

Assets and liabilities denominated in foreign currencies have been translated into Canadian dollars at exchange rates prevailing at the year-end date. Revenue and expenses have been translated using the exchange rates prevailing on the transaction date. Gains and losses arising from these translation policies are included in the statement of operations.

(e) Capital assets:

Purchased capital assets are recorded at cost. Capital assets are amortized on a straight-line basis using the following annual rate:

Computer equipment	25%
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(f) Employee future benefits:

The Foundation maintained a defined benefit pension plan covering its employees. The benefits from the defined benefit pension plan are based on years of service and final average salary up to October 31, 2013. In 2013, the defined benefit pension plan was closed for new entries. In addition, earnings and benefits were frozen and required contributions ceased for all members. Effective May 19, 2014, the Foundation filed for wind up of its defined benefit pension plan.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

1. Significant accounting policies (continued):

Subsequent to year end, the Financial Services Commission of Ontario authorized the wind up. The distribution of the surplus assets will be approved at a later time.

The Foundation now makes contributions directly to employees' retirement through payments directed at their registered retirement savings plans.

The Foundation accrues its obligations under the defined benefit plan as the employees render the services necessary to earn the pension benefits. The actuarial determination of the accrued benefit obligations for pension benefits uses the projected benefit method prorated on service (which incorporates management's best estimate of future salary levels, other costs escalation, retirement ages of employees and other actuarial factors). The most recent actuarial valuation of the pension plan was as of June 1, 2012, and a wind up valuation report was completed as at May 19, 2014.

Actuarial gains (losses) on plan assets arise from the difference between the actual return on plan assets for a period and the expected return on plan assets for that period and are immediately recognized in the statement of changes in net assets. For the purpose of calculating the expected return on plan assets, the assets are valued at fair value. Actuarial gains (losses) on the accrued benefit obligation arise from differences between actual and expected experience and from changes in the actuarial assumptions used to determine the accrued benefit obligation and are immediately recognized in the statement of changes in net assets.

Past service costs arising from plan amendments are recognized immediately in the statement of changes in net assets.

(g) Grants:

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

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

1. Significant accounting policies (continued):

(h) 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. Significant items subject to such estimates and assumptions include the assets and obligations related to employee future benefits. Actual results could differ from those estimates.

2. Change in accounting policy:

Effective January 1, 2014, the Foundation adopted new CPA Canada Handbook - Accounting Part III Section 3463, Reporting Employee Future Benefits by Not-for-Profit Organizations which incorporates Section 3462, Employee Future Benefits in Part II.

Under the new standard, the actuarial gains and losses and past service costs are no longer deferred and amortized over future periods. The full actuarial liability net of assets is recorded in the statement of financial position, the annual benefit cost is recorded in the statement of operations and the change in unamortized gains and losses is recognized in the statement of changes in net assets. In addition, interest cost and expected rate of return on plan assets are replaced with a net interest amount that is calculated by applying the discount rate used to calculate the net defined benefit obligation.

For defined benefit plans for which an actuarial valuation for funding purposes exists, an accounting policy choice between using the funding valuation or an accounting valuation is available. The Foundation has elected to use the valuation for funding purposes.

The Foundation implemented the new standard retrospectively. The impact is as follows:

Statement of financial position:

2013	As previously presented	Restatements	As restated
Accrued pension asset	\$ 348,980	\$ (348,980)	\$ –
Unrestricted net assets	–	(348,980)	(348,980)

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

2. Change in accounting policy (continued):

Statement of operations:

2013	As previously presented	Restatements	As restated
Salaries and benefits	\$ 445,598	\$ (28,023)	\$ 417,575

Statement of changes in net assets:

2013	As previously presented	Restatements	As restated
Net assets, beginning of year	\$ 73,926,393	\$ (276,703)	\$ 73,649,690

3. Cash and cash equivalents:

Cash and cash equivalents include deposits in banks and short-term investments, which are highly liquid with original maturities of less than three months. Components of cash and cash equivalents are as follows:

	2014	2013
Cash on deposit	\$ 2,111,793	\$ 2,969,865
Beutel Goodman Cash Management Funds	5,304,506	861,491
Connor, Clark and Lunn Short-Term Investments	860,651	997,686
	\$ 8,276,950	\$ 4,829,042

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

4. Investments:

Investments are managed by four independent investment managers.

Nature of investments		2014	2013
Bonds and debentures:			
Beutel Goodman and Company Limited	Canadian fixed income	\$ 2,937,957	\$ 4,993,290

Nature of investments		2014	2013
Shares:			
Magna Vista Investment Management	Canadian equity	\$ 22,179,604	\$ 21,650,206
Neuberger Berman, LLP	U.S. equity	40,151,466	37,985,703
Connor, Clark & Lunn Investment Management Ltd.	Canadian equity	24,516,902	22,486,838
Scotia iTrade	Canadian equity	–	1,327,638
		\$ 86,847,972	\$ 83,450,385

5. Capital assets:

		2014	2013
Cost	Accumulated amortization	Net book value	Net book value
Computer equipment	\$ 35,024	\$ 35,024	\$ –
Asset under construction	871,685	–	871,685
	\$ 906,709	\$ 35,024	\$ 871,685
			\$ 1,686
			–
			\$ 1,686

In 2014, the Foundation purchased a commercial condominium unit in Toronto to house its head office and office staff. The Foundation will occupy in or around May 2015 at which time amortization will commence.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

6. Employee future benefits:

Effective May 19, 2014, the Foundation filed for wind up of its defined benefit pension plan and the windup liabilities for all remaining members in the plan were determined. There are no remaining active members in this plan after the wind-up date.

The reconciliation of the funded status of the defined benefit pension plan to the amount recorded in the financial statements is as follows:

	2014	2013 (Restated - note 2)
Accrued benefit obligation	\$ (867,800)	\$ (865,900)
Fair value of plan assets	1,063,200	1,018,700
Valuation allowance	(195,400)	(152,800)
	\$ —	\$ —

Continuity of the accrued pension asset is as follows:

	2014	2013 (Restated - note 2)
Balance, beginning of year	\$ —	\$ 70,800
Benefit expense	(44,100)	(37,500)
Employer contributions	38,600	67,000
Remeasurements and other items	5,500	(100,300)
Balance, end of year	\$ —	\$ —

7. 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, 2014

8. 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.

9. Lease commitments:

The Foundation has leased office premises and certain equipment under net operating leases, which expire at various dates to June 30, 2017. Future minimum payments, by year and in aggregate, are as follows:

2015	\$ 22,071
2016	4,979
2017	790
	<hr/>
	\$ 27,840

10. Financial risks:

The Foundation manages its investment portfolio to earn investment income. The Foundation is not involved in any hedging relationships through its operations and does not hold or use any derivative financial instruments for trading purposes.

Market price risk arises as a result of trading in equity securities and fixed income securities. Fluctuations in the market expose the Foundation to a risk of loss. The Foundation mitigates this risk through controls to monitor and limit concentration levels.

The Foundation is exposed to foreign exchange risk in its foreign investment portfolios as a result of exchange rate fluctuations and the volatility of these rates.

THE PHYSICIANS' SERVICES INCORPORATED FOUNDATION

Notes to Financial Statements (continued)

Year ended December 31, 2014

10. Financial risks (continued):

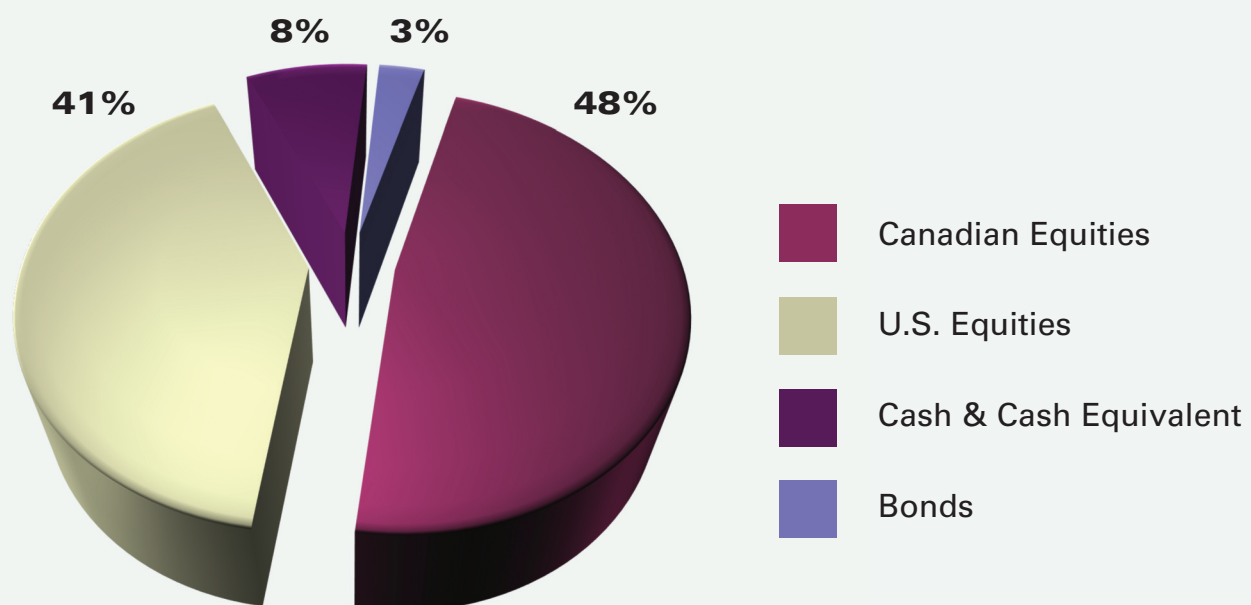
Interest rate risk arises from fluctuations in interest rates and the degree of volatility of these rates. The Foundation is exposed to interest rate risk on its bonds and debentures investments. The Foundation manages this risk by staggering the maturity dates of its investments.

The Foundation believes that it is not exposed to significant credit risk arising from its financial instruments.

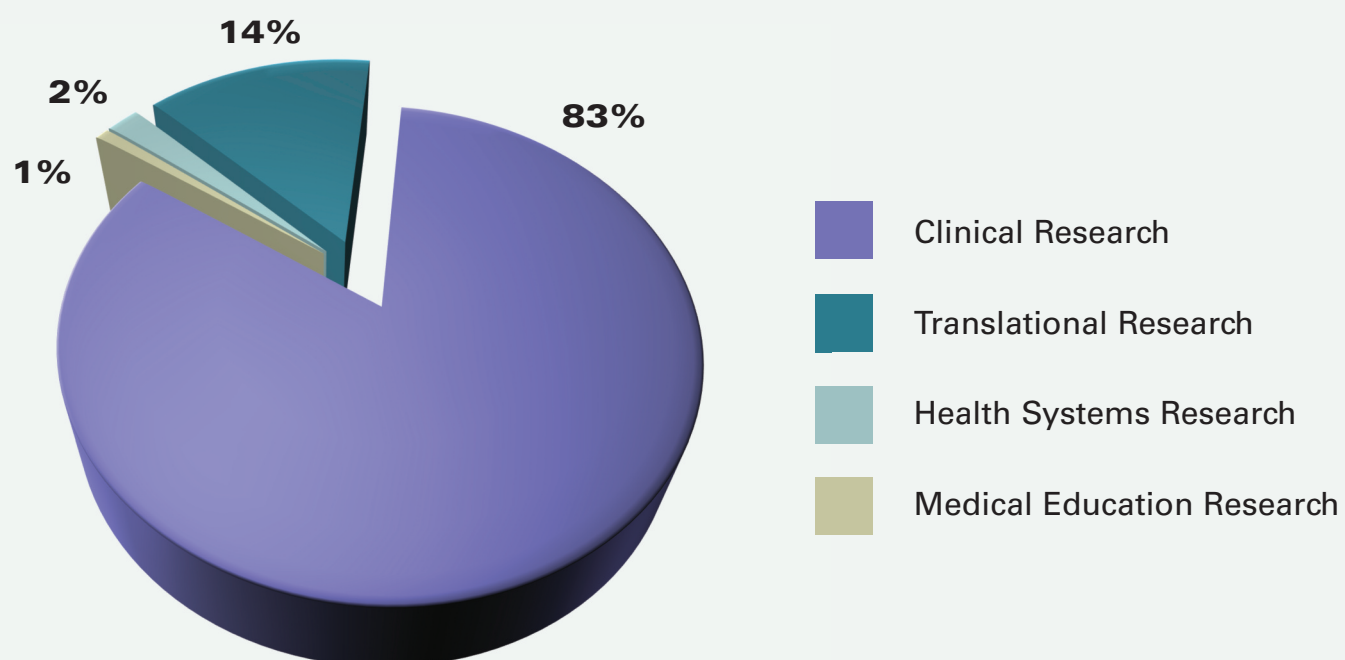
Additionally, the Foundation believes it is not exposed to significant liquidity risk as all investments are held in instruments that are highly liquid and can be disposed of to settle commitments.

There has been no change to the risk exposures from 2013.

2014 DISTRIBUTION OF ASSETS AT MARKET VALUE



2014 DISTRIBUTION OF GRANTS APPROVED



PSI FOUNDATION

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2014

AMOUNT
APPROVED

HEALTH SYSTEMS RESEARCH

Queen's University

Dr. M.R. Mitri*, Dr. I. Harle

Perceptions of physicians on the adoption of a palliative care approach in patients with COPD

\$ 9,000

Toronto General Hospital

Dr. A. Roberts, Dr. T. Zhong

Using a novel quality metric approach to examine the healthcare utilization of post-mastectomy breast reconstruction: a population-based study

\$ 74,000

Total Health Systems

\$ 83,000

COMMUNITY-BASED RESEARCH

Headwaters Health Care Centre

Dr. S. Singwi

Knowledge extraction from a community hospital EHR to improve anesthetic patient care

\$ 5,000

Lakeridge Health

Dr. D.R. Ricciuto

Trends in *C. difficile* infection frequency, severity and length of stay after implementation of an antimicrobial stewardship program and *C. difficile* toolkit at a large, community hospital

\$ 5,500

Total Community-Based Research

\$ 10,500

MEDICAL EDUCATION RESEARCH

University of Ottawa

Dr. K.A. Crawford*, Dr. N. Dudek

Assessing clinical supervisors' assessments - what makes them better?

\$ 9,000

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2014 (CONTINUED)

AMOUNT
APPROVED**MEDICAL EDUCATION RESEARCH (CONTINUED)****St. Michael's Hospital**

Dr. T.P. Grantcharov

Assessing personality traits of surgical trainees to predict non-technical and crisis management skills in the operating room

\$ 15,500

Dr. P. Szasz*, Dr. T. Grantcharov

The development of feasible, reliable and valid in-training milestones as a means to assess technical and non-technical competence in General Surgery trainees

\$ 19,000

Total Medical Education Research

\$ 43,500

CLINICAL RESEARCH**McMaster University**

Dr. W. Alhazzani

REVISE: Re-evaluating the Inhibition of Stress Erosions: gastrointestinal bleeding prophylaxis in ICU

\$ 150,000

Dr. E. Belley-Côté*, Dr. D. Cook

Prognostic value of elevated troponins in critical illness study (PRO-TROPICS): a pilot study fenestration on pain and quality of life in patients with lateral epicondylitis

\$ 19,500

Dr. N. Evaniew*, Dr. M. Ghert

Central adjudication of deep post-operative infection following limb-salvage surgery

\$ 20,000

Dr. L. Jiao*, Dr. J. Pernica

Loop-mediated isothermal amplification: a novel molecular method for simultaneous detection of common pathogens in pediatric empyema

\$ 9,000

Dr. D. Mertz

Prevention of infections in cardiac surgery (PICS)

\$ 170,000

Dr. J. Pernica

Short-course antimicrobial therapy for paediatric respiratory infections (SAFER)

\$ 169,500

Queen's University

Dr. G. Yau*, Dr. S. Sharma

The effect of repeated intravitreal injections of anti-vascular endothelial growth factor on intraocular pressure and optic nerve morphology: a prospective cohort study

\$ 2,500

University of Ottawa

Dr. D.A. Dymant

Rapid and comprehensive diagnostic sequencing for rare, genetic disease in the critically ill newborn

\$ 119,000

Dr. C. Smyth, Dr. P. Poulin

Evaluation of an interdisciplinary complex pain management program linked to primary care to improve clinical outcomes and reduce health care utilization among patients with chronic pain and frequent emergency department visits

\$ 168,000

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2014 (CONTINUED)

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)**

Dr. L.M. Ward	
Bone fragility in boys with Duchenne muscular dystrophy	\$ 170,000

Hospital for Sick Children

Dr. A. Ali	
Feasibility of specular microscopy in a pediatric population	\$ 74,000
Dr. Y. Finkelstein, Dr. S. Schuh	
Bronchiolitis epidemiology: air pollution and trends of hospitalization (The BREATH Study)	\$ 169,000
Dr. M. Mouzaki	
Intestinal microbiota, bile acids and non-alcoholic fatty liver disease: is there a link?	\$ 146,000
Dr. E. Pope	
Nadolol versus propranolol for patients with infantile hemangioma: a randomized controlled non-inferiority trial	\$ 164,500
Dr. S. Schuh	
Inhaled magnesium in refractory pediatric acute asthma (MAGNUM PA Trial)	\$ 170,000
Dr. R. Vanderlaan*, Dr. C. Caldarone	
Myofilament mechanics in hypertrophic cardiomyopathy	\$ 19,500

Mount Sinai Hospital

Dr. S.E. Card*, Dr. B.C. Dickson	
Assessment of sex steroid hormone receptor expression in liposarcoma: a potential therapeutic target	\$ 20,000
Dr. Y. Leong, Dr. H.P. Drutz	
A randomized double-blinded trial comparing fesoterodine to desmopressin in the treatment of severe nocturia in women aged 65 and older	\$ 125,500

Princess Margaret Hospital

Dr. V.S. Liang*, Dr. A.M. Easson	
Patterns of invasive palliative procedures performed in patients with metastatic colorectal cancer	\$ 17,500
Dr. X. Zhao*, Dr. F. Liu	
The role of adipose derived stem cells for reversal of radiation fibrosis	\$ 19,500

St. Michael's Hospital

Dr. J.C. Marshall	
Cellular and molecular mechanisms of neutrophil survival in sepsis and trauma: the role of PBEF/Nampt/Visfatin	\$ 169,500
Dr. A.D. Pinto, Dr. A. Bayoumi	
IGNITE (addressing income security in primary care) Study: a pragmatic randomized controlled trial	\$ 58,000

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2014 (CONTINUED)

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)****Sunnybrook Health Sciences Centre**

Dr. P.J. Karanicolas	
Tranexamic acid versus placebo to reduce perioperative blood transfusion in patients undergoing major liver resection: a pilot randomized controlled trial	\$ 90,500
Dr. J. Khan*, Dr. S. Choi	
Pregabalin and lidocaine in breast surgery to alter neuropathic pain (PLAN): a pilot study	\$ 17,000
Dr. P. McHardy, Dr. S. Choi	
Comparison of the effects of perineural versus systemic dexamethasone on low dose interscalene brachial plexus block: a randomized trial	\$ 86,000
Dr. J.G. van Dyk, Dr. P.T. Church	
The predictive validity of the Assessment of the Quality of General Movements for identification of long-term neurodevelopmental outcome in preterm infants	\$ 37,500

Toronto General Hospital

Dr. M. Barua, Dr. D. Cattran	
Antimicrobial peptide fortified surfactant for the treatment of cystic fibrosis	\$ 168,000
Dr. C.T. Chan, Dr. C. Lok	
The impact of exercise on vascular remodeling, arteriovenous fistula creation and use in patients with chronic kidney disease: a randomized controlled trial	\$ 170,000
Dr. L. Lapointe-Shaw, Dr. J. Feld	
Diagnosis and management of hepatitis B and hepatitis C infection in Ontario	\$ 169,500
Dr. S. Riazi	
Investigation of metabolomics profiling in patients with malignant hyperthermia	\$ 64,000

Toronto Western Hospital

Dr. C.S.Y. Cheung*, Dr. W. Lam	
Progression of geographic atrophy and intravitreal injections of ranibizumab among patients treated for age-related macular degeneration	\$ 3,000
Dr. M.G. Fehlings	
Preventing neurological decline in cervical spondylotic myelopathy with intravenous IgG	\$ 165,500
Dr. K.S. Jhaveri	
Comprehensive evaluation of disease status in primary sclerosing cholangitis by MRCP and MR elastography through hepatic fibrosis estimation with comparison to FibroScan	\$ 117,000
Dr. T. Marras	
Risk of pulmonary nontuberculous mycobacterial disease associated with inhaled corticosteroids in Ontario	\$ 50,000
Dr. J. Singh, Dr. L. Munshi	
Predictors of apnea and their relationship to time to death following withdrawal of life sustaining therapy for donation after cardiac death candidates	\$ 37,000

GRANTS APPROVED

FOR THE YEAR ENDED DECEMBER 31, 2014 (CONTINUED)

AMOUNT
APPROVED**CLINICAL RESEARCH (CONTINUED)****Toronto Rehabilitation Institute**

Dr. N. Cullen, Dr. A. Colantonio

Hypoxic-ischemic service utilization

\$ 71,000

University of Toronto

Dr. K. Armstrong*, Dr. S. McCabe

Distal radius fracture care in the province of Ontario:
factors impacting management

\$ 18,500

Western University

Dr. I. Abdulla*, Dr. G. Athwal

Indomethacin prophylaxis for heterotopic ossification
after surgical treatment of elbow trauma: a randomized,
prospective, double-blinded study

\$ 20,000

Dr. R.H. Manocha*, Dr. G.J.W. King

Rehabilitation of the ligament-deficient elbow: a biomechanical study

\$ 19,500

Dr. C. Yamashita, Dr. R. Veldhuizen

Antimicrobial peptide fortified surfactant for the treatment
of cystic fibrosis

\$ 69,500

Total Clinical Research**\$ 3,524,000****FELLOWSHIPS****PSI Graham Farquharson Knowledge Translation Fellowship**

Dr. D. Scales

\$ 150,000

Dr. A. Gershon

\$ 150,000

Dr. J.L. Sievenpiper

\$ 300,000

Total Fellowships**\$ 600,000****LECTURESHIPS****NOSM Visiting Lectureship**

Northern Ontario School of Medicine

\$ 5,445

Total Lectureships**\$ 5,445****GRAND TOTAL****\$ 4,266,445**

* Investigators funded under the Resident Research Program

PSI FOUNDATION

RESIDENT RESEARCH PRIZES

FOR EXCELLENCE IN RESEARCH PAPERS 2014

TITLE OF PAPER	AWARDEE	DEPARTMENT
Queen's University Efficacy of intravenous mannitol as an adjunct to lateral canthotomy and cantholysis in the management of orbital compartment syndrome; a non-human primate model	Johnson, D.	Ophthalmology
The use of task-evoked pupillary response as an objective measure of cognitive load in experts and novices during test taking in medicine: a potential new adjunct in the assessment of expertise	Szulewski, A.	Emergency Medicine
Early detection of Guillain-Barre with an eye drop test	Panosyan, F.	Neurology
Accuracy of instructor assessment of chest compression quality during simulated resuscitation	Brennan, E.	Emergency Medicine
McMaster University A randomized, double-blind, placebo-controlled pilot trial on the efficacy of early enoxaparin: the optimal timing of thromboprophylaxis in traumatic intracranial haemorrhage study	Rice, T.	General Surgery
A systematic review and meta-analysis to assess the safety of TNF alpha antagonists during pregnancy	Narula, N.	Gastroenterology
Intrawound vancomycin to prevent infections after spine surgery: a systematic review and meta-analysis	Evaniew, N.	Orthopedic Surgery
Transforming growth factor-beta (TGF β) ameliorates intestinal epithelial barrier dysfunction induced by hypoxia-reoxygenation	Howe, K.	General Surgery
Revision rates and function with modern intramedullary nails compared to sliding hip screws in patients with intertrochanteric hip fractures: a systematic review and meta-analysis	Chaudhry, H.	Orthopedic Surgery
Western University Glutamatergic metabolite correlations with neuropsychological tests in first episode schizophrenia	Dempster, K.	Psychiatry
Introduction of a mobile device based tertiary survey application reduces missed injuries: a multi-center prospective study	Moffat, B.	General Surgery
A prospective study of caffeine intake and risk of incident tinnitus	Glicksman, J.	Otolaryngology
The hypoglycemic risk of glyburide (glibenclamide) compared with modified release gliclazide: a population-based cohort study	Clemens, K.	Endocrinology and Metabolism

RESIDENT RESEARCH PRIZES

FOR EXCELLENCE IN RESEARCH PAPERS 2014 (CONTINUED)

TITLE OF PAPER	AWARDEE	DEPARTMENT
MRI-targeted prostate biopsy: evaluation of cognitive vs. MR-TRUS fusion accuracy for transrectal ultrasound (TRUS)-guided biopsy based on operator experience	Cool, D.W.	Diagnostic Radiology
University of Ottawa		
Anal cancer screening knowledge, attitudes, and experiences of MSM in Ottawa: implications for prevention and screening in Canada	Moore, A.	Family Medicine
Elective, major noncardiac surgery on the weekend: a population-based cohort study of 30-day mortality	McIsaac, D.I.	Anesthesiology
Contemporary mid-term echocardiographic outcomes of Bentall procedure and aortic valve sparing root replacement	Toeg, H.	Cardiac Surgery
Systematic review and meta-analysis of liver resection for metastatic melanoma	Aubin, J-M.	General Surgery
Treatment outcomes for male breast cancer: a single-centre retrospective case-control study	Rushton, M.	Internal Medicine
Northern Ontario School of Medicine		
Increasing experienced physician engagement in simulation labs	Pulkinen, C.	Anesthesia
Association between wind turbines and human distress	Arra, I.	Public Health
Awareness of physician interactions with the pharmaceutical industry amongst medical students	Robinson, K.	Family Medicine
Management of the unexpectedly difficult airway after induction of anesthesia when ventilation is good: a survey	Ebrahim, F.	Anesthesia
University of Toronto		
Quantification of diffuse interstitial myocardial fibrosis in thalassemia major using cardiac MR assessment of extracellular volume fraction	Hanneman, K.	Diagnostic Radiology
The predictive utility of prior positive urine cultures	MacFadden, D.R.	Infectious Diseases
Inflammation in children and adolescents with neuropsychiatric disorders: a systematic review	Mitchell, R.	Child & Adolescent Psychiatry
The impact of adoption of the International Association of Diabetes in Pregnancy Study Group criteria for the screening and diagnosis of gestational diabetes	Mayo, K.	Obstetrics & Gynaecology
NK cell line killing of leukemia cells is enhanced by reverse antibody dependent cell mediated cytotoxicity (R-ADCC) via NKp30 and NKp44 and target Fcγ Receptor II (CD32)	Williams, B.A.	Paediatrics

PSI FOUNDATION

RECENTLY PUBLISHED PAPERS ON FOUNDATION FUNDED PROJECTS

TITLE	GRANTEE	JOURNAL
Economic evaluation of decompressive craniectomy versus barbiturate coma for refractory intracranial hypertension following traumatic brain injury	Alali, A.S. Nathens, A.B. Scales, D.C.	Crit Care Med. 2014 Oct;42(10):2235-43
Beta blockers for acute traumatic brain injury: a systematic review and meta-analysis	Alali, A.S. Nathens, A.B.	Neurocrit Care. 2014 Jun;20(3):514-23
Tracheostomy timing in traumatic brain injury: a propensity-matched cohort study	Alali, A.S. Nathens, A.B.	J Trauma Acute Care Surg. 2014 Jan; 76(1):70-6; discussion 76-8
Intracranial pressure monitoring in severe traumatic brain injury: results from the American College of Surgeons Trauma Quality Improvement Program	Alali, A.S. Nathens, A.B. Scales, D.C.	J Neurotrauma. 2013 Oct 15;30(20):1737-46
Reconstruction of the coronoid process using the tip of the ipsilateral olecranon	Alolabi, B. King, G.J.W.	J Bone Joint Surg Am. 2014 Apr 2;96(7):590-6
Hippocampal malrotation is associated with chromosome 22q11.2 microdeletion	Andrade, D.M.	Can J Neurol Sci. 2013 Sep;40(5):652-6
Improved procedural performance following a simulation training session may not be transferable to the clinical environment	Bismilla, Z. Whyte, H.E.	J Perinatol. 2012 Jul;32(7):539-44
High-fidelity simulator technology may not be superior to traditional low-fidelity equipment for neonatal resuscitation training	Bismilla, Z. Whyte, H.E.	J Perinatol. 2012 Apr;32(4):287-92
Impact of nasal surgery on speech resonance	Brandt, M.G. Rotenberg, B.W.	Ann Otol Rhinol Laryngol. 2014 Aug; 123(8):564-70
The addition of epidural local anesthetic to systemic multimodal analgesia following lumbar spinal fusion: a randomized controlled trial	Choi, S. Brull, R.	Can J Anaesth. 2014 Apr;61(4):330-9
Factors associated with postoperative exacerbation of sleep-disordered breathing	Chung, F. Shapiro, C.M.	Anesthesiology. 2014 Feb;120(2):299-311
Postoperative changes in sleep-disordered breathing and sleep architecture in patients with obstructive sleep apnea	Chung, F. Shapiro, C.M.	Anesthesiology. 2014 Feb;120(2):287-98
Obstructive sleep apnea and oxygen therapy: a systematic review of the literature and meta-analysis	Chung, F.	J Clin Sleep Med. 2013 Mar;15;9(3):271-9

RECENTLY PUBLISHED PAPERS

ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Development, implementation, and dissemination of the I-PASS handoff curriculum: a multisite educational intervention to improve patient handoffs	Coffey, M.	Acad Med. 2014 Jun;89(6):876-84
An anthropometric study of the distal humerus	Desai, S.J. King, G.J.W.	J Shoulder Elbow Surg. 2014 Apr;23(4):463-9
Hemiarthroplasty of the elbow: the effect of implant size on kinematics and stability	Desai, S.J. King, G.J.W.	J Shoulder Elbow Surg. 2014 Jul;23(7):946-54
Vital signs after cardiac arrest following withdrawal of life-sustaining therapy: a multicenter prospectiv observational study	Dhanani, S.	Crit Care Med. 2014 Nov;42(11):2358-69
Mechanical ventilation triggers hippocampal apoptosis by vagal and dopaminergic pathways	dos Santos, C.C.	Am J Respir Crit Care Med. 2013 Sep 15;188(6):693-702
Network analysis of transcriptional responses induced by mesenchymal stem cell treatment of experimental sepsis	dos Santos, C.C.	J Vasc Surg. 2014 Nov;181(5):1681-92
Identification of patient-derived outcomes after aortic aneurysm repair	Dubois, L. Forbes, T.L.	J Vasc Surg. 2014 2012;7(10):e45506
Assessment and treatment of post patent ductus arteriosus ligation syndrome	El-Khuffash, A.F. McNamara, P.J.	J Pediatr. 2014 Jul;165(1):46-52.e1
Multidisciplinary consensus on assessment of unruptured intracranial aneurysms: proposal of an international research group	Etminan, N.	Stroke. 2014 May;45(5):1523-30
Age of collagen in intracranial saccular aneurysms and parenchymal pathophysiology after spinal cord injury	Etminan, N.	Stroke. 2014 Jun;45(6):1757-63
A spatial analysis of private well water <i>Escherichia coli</i> contamination in southern Ontario	Evans, G.	Geospat Health. 2013 Nov;8(1):65-75
Intravenous magnesium sulfate for vaso-occlusive episodes in sickle cell disease	Friedman, J.N. Goldman, R.D.	Pediatrics. 2013 Dec;132(6):e1634-41
The combined effect of maternal obesity and fetal macrosomia on pregnancy outcomes	Gaudet, L. Walker, M.	J Obstet Gynaecol Can. 2014 Sep;36(9):776-84
Obstructive sleep apnea and the prevalence and incidence of cancer	Gershon, A.S.	CMAJ. 2014 Sep 16;186(13):985-92
Quantifying comorbidity in individuals with COPD: a population study	Gershon, A.S.	Eur Respir J. 2015 Jan;45(1):51-9

RECENTLY PUBLISHED PAPERS

ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Obstructive sleep apnea and incident diabetes. A historical cohort study	Gershon, A.S.	Am J Respir Crit Care Med. 2014 Jul 15;190(2):218-25
The effect of triple vs. double nonopioid therapy on postoperative pain and functional outcome after abdominal hysterectomy: a randomised control trial	Gilron, I.	Eur J Anaesthesiol. 2014 Dec 5. [Epub ahead of print]
Antidepressant drugs for prevention of acute and chronic postsurgical pain: early evidence and recommended future directions	Gilron, I.	Anesthesiology. 2014 Sep;121(3):591-608
Prevention of chronic pain after surgery: new insights for future research and patient care	Gilron, I.	Can J Anaesth. 2014 Feb;61(2):101-11
Combination pharmacotherapy for management of chronic pain: from bench to bedside	Gilron, I.	Lancet Neurol. 2013 Nov;12(11):1084-95
Breathing helium-hyperoxia and tolerance of partitioned exercise in patients with COPD	Goldstein, R.S.	J Cardiopulm Rehabil Prev. 2014 Jan Feb;34(1):69-74
Continuous electroencephalography for seizures and status epilepticus	Hahn, C.D.	Curr Opin Pediatr. 2014 Dec;26(6):675-81
Seizure burden is independently associated with short term outcome in critically ill children	Hahn, C.D.	Brain. 2014 May;137(Pt 5):1429-38
Neurocritical care: seizures after acute brain injury- more than meets the eye	Hahn, C.D.	Nat Rev Neurol. 2013 Dec;9(12):662-4
Electroencephalography monitoring in critically ill children: current practice and implications for future study design	Hahn, C.D.	Epilepsia. 2013 Aug;54(8):1419-27
Electrographic seizures in pediatric ICU patients: cohort study of risk factors and mortality	Hahn, C.D.	Neurology. 2013 Jul 23;81(4):383-91
Double-chamber rotating bioreactor for dynamic perfusion cell seeding of large-segment tracheal allografts: comparison to conventional static methods	Haykal, S. Waddell, T.K.	Tissue Eng Part C Methods. 2014 Aug;20(8):681-92
The effect of decellularization of tracheal allografts on leukocyte infiltration and of recellularization on regulatory T cell recruitment	Haykal, S. Waddell, T.K.	Biomaterials. 2013 Jul;34(23):5821-32
Evaluation of the structural integrity and extracellular matrix components of tracheal allografts following cyclical decellularization techniques: comparison of three protocols	Haykal, S. Waddell, T.K.	Tissue Eng Part C Methods. 2012 Aug;18(8):614-23

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ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Pathway-based analysis of primary biliary cirrhosis genome-wide association studies	Hirschfield, G.M. Siminovitch, K.A.	Genes Immun. 2013 Apr;14(3):179-86
ImmunoChip analyses identify a novel risk locus for primary biliary cirrhosis at 13q14, multiple independent associations at four established risk loci and epistasis between 1p31 and 7q32 risk variants	Hirschfield, G.M. Siminovitch, K.A.	Hum Mol Genet. 2012 Dec 1;21(23):5209-21
Association of primary biliary cirrhosis with variants in the CLEC16A, SOCS1, SPIB and SIAE immunomodulatory genes	Hirschfield, G.M. Siminovitch, K.A.	Genes Immun. 2012 Jun;13(4):328-35
Abnormal trigeminal nerve microstructure and brain white matter in idiopathic trigeminal neuralgia	Hodaie, M. Davis, K.D.	Pain. 2014 Jan; 155(1):37-44
Accidental falls and risk of mortality among older adults on chronic peritoneal dialysis	Jassal, S.V.	Clin J Am Soc Nephrol. 2014 Jul;9(7):1248-53
Functional disability in older adults maintained on peritoneal dialysis therapy	Jassal, S.V.	Perit Dial Int. 2014 Apr 7. [Epub ahead of print]
Leukocyte infiltration and activation of the NLRP3 inflammasome in white adipose tissue following thermal injury	Jeschke, M.G.	Crit Care Med. 2014 Jun;42(6):1357-64
Ex vivo expansion of hematopoietic stem and progenitor cells: recent advances	Jeschke, M.G.	World J Hematol 2014 May 6; 3(2): 18-28
Hypoglycemia is associated with increased postburn morbidity and mortality in pediatric patients	Jeschke, M.G.	Crit Care Med. 2014 May;42(5):1221-31
Survivors versus nonsurvivors postburn: differences in inflammatory and hypermetabolic trajectories	Jeschke, M.G.	Ann Surg. 2014 Apr;259(4):814-23
Enteral nutrition support in burn care: a review of current recommendations as instituted in the Ross Tilley Burn Centre	Jeschke, M.G.	Nutrients. 2012 Oct 29;4(11):1554-65
Burn plus lipopolysaccharide augments endoplasmic reticulum stress and NLRP3 inflammasome activation and reduces PGC-1 α in liver	Jeschke, M.G.	Shock. 2014 Feb;41(2):138-44
The use of dermal substitutes in burn surgery: acute phase	Jeschke, M.G.	Wound Repair Regen. 2014 Jan;22(1):14-22
Prenatal anti-Ro antibody exposure, congenital complete atrioventricular heart block, and high-dose steroid therapy: impact on neurocognitive outcome in school-age children	Kelly, E.N. Sananes, R.	Arthritis Rheumatol. 2014 Aug;66(8):2290-6

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ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Drug use prior to incarceration and associated socio-behavioural factors among males in a provincial correctional facility in Ontario, Canada	Kouyoumdjian, F.G. Main, C.	Can J Public Health. 2014 May 9; 105(3):e198-202
Impact of clopidogrel plus aspirin versus aspirin alone on the progression of native coronary artery disease after bypass surgery: analysis from the Clopidogrel After Surgery for Coronary Artery Disease (CASCADE) randomized trial	Kulik, A. Ruel, M.	Circulation. 2014 Sep 9;130(11 Suppl 1):S12-8
Cardiopulmonary fitness correlates with regional cerebral grey matter perfusion and density in men with coronary artery disease	Lancôt, K.L. Herrmann, N.	PLoS One. 2014 Mar 12;9(3):e91251
Assessing cognitive effects of anticholinergic medications in patients with coronary artery disease	Lancôt, K.L. Herrmann, N.	Psychosomatics. 2014 Jan-Feb;55(1):61-8
Ceramides predict verbal memory performance in coronary artery disease patients undertaking exercise: a prospective cohort pilot study	Lancôt, K.L. Herrmann, N.	BMC Geriatr. 2013 Dec 12;13(1):135
Higher cortisol predicts less improvement in verbal memory performance after cardiac rehabilitation in patients with coronary artery disease	Lancôt, K.L. Herrmann, N.	Cardiovasc Psychiatry Neurol. 2013; 2013:340342
Targeted temperature management processes and outcomes after out-of-hospital cardiac arrest: an observational cohort study	Lin, S. Morrison, L.J. Scales, D.C.	Crit Care Med. 2014 Dec;42(12):2565-74
External rotation immobilization for primary shoulder dislocation: a randomized controlled trial	Litchfield, R. Whelan, D.B.	Clin Orthop Relat Res. Aug;472(8):2380-6
Carbon monoxide releasing molecules inhibit cell death resulting from renal transplantation related stress	Luke, P.P.	J Urol. 2013 Aug;190(2):772-8
VPAC2 receptor agonist BAY 55-9837 increases SMN protein levels and moderates disease phenotype in severe spinal muscular atrophy mouse models	MacKenzie, A.	Orphanet J Rare Dis. 2014 Jan 9;9(1):4
The liver in sepsis: shedding light on the cellular basis of hepatocyte dysfunction	Marshall, J.C.	Crit Care. 2013 Jun 12;17(3):153
Subjective memory evaluation before and after temporal lobe epilepsy surgery	McLachlan, R.S.	PLoS One. 2014 Apr 1;9(4):e93382
Maternal, umbilical arterial and umbilical venous 25-hydroxyvitamin D and adipocytokine concentrations in pregnancies with and without gestational diabetes	McManus, R. de Vrijer, B.	Clin Endocrinol (Oxf). 2014 May;80(5):635-41

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ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Analgesic, sedative, antipsychotic, and neuromuscular blocker use in Canadian intensive care units: a prospective, multicentre, observational study	Mehta, S.	Can J Anaesth. 2014 Jul;61(7):619-30
Predictors of physical restraint use in Canadian intensive care units	Mehta, S.	Crit Care. 2014 Mar 24;18(2):R46
Scale and pattern of atrophy in the chronic stages of moderate-severe TBI	Mikulis, D.J. Green, R.E.A.	Front Hum Neurosci. 2014 Mar 31;8:67
Moderate-severe traumatic brain injury causes delayed loss of white matter integrity: evidence of fornix deterioration in the chronic stage of injury	Mikulis, D. Green, R.	Brain Inj. 2013; 27(12):1415-22
Disruptions of functional connectivity in the default mode network of comatose patients	Mirsattari, S.M.	Neurology. 2012 Jan 17;78(3):175-81
Association between gait variability and brain ventricle attributes: a brain mapping study	Montero-Odasso, M.	Exp Gerontol. 2014 Sep;57:256-63
Use of near infrared spectroscopy to detect impaired tissue oxygen saturation in patients with complex regional pain syndrome type 1	Murkin, J.M.	Can J Anaesth. 2014 Jun;61(6):563-70
The use of an online three-dimensional model improves performance in ultrasound scanning of the spine: a randomized trial	Niazi, A.U.	Can J Anaesth. 2013 May;60(5):458-64
Effect of insulin sensitivity on corticolimbic responses to food picture in women with polycystic ovary syndrome	Palerme, S. Van Vugt, D.A.	Obesity (Silver Spring). 2013 Jun;21(6):1215-22
Imaging-based diagnosis of autosomal dominant polycystic kidney disease	Pei, Y.	J Am Soc Nephrol. 2014 Jul 29. [Epub ahead of print]
Real-time polymerase chain reaction for microbiological diagnosis of parapneumonic effusions in Canadian children	Pernica, J.M. Slinger, R.	Can J Infect Dis Med Microbiol. 2014 May; 25(3):151-4
The molecular phenotype of endocapillary proliferation: novel therapeutic targets for IgA nephropathy	Reich, H.N. Hertzenberg, A.M.	PLoS One. 2014 Aug 18;9(8):e103413
CASQ1 gene is an unlikely candidate for malignant hyperthermia susceptibility in the North American population	Riazi, S.	Anesthesiology. 2013 Feb;118(2):344-9
Cavernous venous malformations of the orbit (so-called cavernous haemangioma): a comprehensive evaluation of their clinical, imaging and histologic nature	Rootman, D.B. Yucel, Y.H.	Br J Ophthalmol. 2014 Jul;98(7):880-8
Contamination of Canadian private drinking water sources with antimicrobial resistant <i>Escherichia coli</i>	Salvadori, M.I.	Water Res. 2013 Jun 1;47(9):3026-36

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ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Maternal organ donation and acute injuries in surviving children	Scales, D.C.	J Crit Care. 2014 Dec;29(6):923-9
Association between arterial catheter use and hospital mortality in intensive care units	Scales, D.C.	JAMA Intern Med. 2014 Nov 1;174(11):1746-54
Development of a hands-free pointer for instruction during minimally invasive surgery	Schlachta, C.M.	IEEE RAS/EMBS International Conference June 2012
The WHaSP: a wireless hands-free surgical pointer for minimally invasive surgery	Schlachta, C.M.	IEEE/ASME Transactions on Mechatronics, Vol 17, No 3, June 2012
Effect of oximetry on hospitalization in bronchiolitis: a randomized clinical trial	Schuh, S.	JAMA. 2014 Aug 20;312(7):712-8
Utilization of Diabetes Education Centres in Ontario by people without diabetes	Shah, B.R.	Can J Diabetes. 2014 Jun;38(3):186-90
Diabetes education through group classes leads to better care and outcomes than individual counselling in adults: a population-based cohort study	Shah, B.R.	Can J Public Health. 2014 May 9; 105(3):e192-7
Classical HLA-DRB1 and DPB1 alleles account for HLA associations with primary biliary cirrhosis	Siminovitch, K.A.	Genes Immun. 2012 Sep;13(6):461-8
Last wills and testaments in a large sample of suicide notes: implications for testamentary capacity	Sinyor, M. Schaffer, A.	Br J Psychiatry. 2015 Jan;206(1):72-6
Suicide in bipolar disorder: characteristics and subgroups	Sinyor, M. Schaffer, A.	Bipolar Disord. 2014 Nov;16(7):732-40
Medications without a patient: potential lethal implications of pharmaceuticals left behind	Sinyor, M. Schaffer, A.	Crisis. 2014 Jan 1;35(4):283-5
Characterizing suicide in Toronto: an observational study and cluster analysis	Sinyor, M. Schaffer, A.	Can J Psychiatry. 2014 Jan;59(1):26-33
Comparison of clinical and biochemical markers of dehydration with the clinical dehydration scale in children: a case comparison trial	Tam, R.K.	BMC Pediatr. 2014 Jun 16;14:149
Impact of acute stress on resident performance during simulated resuscitation episodes: a prospective randomized cross-over study	Tarshis, J. Piquette, D.	Teach Learn Med. 2014;26(1):9-16
Outcomes in presyncope patients: a prospective cohort study	Thiruganasam- bandamoorthy, V. Stiell, I.G.	Ann Emerg Med. 2014 Aug 30 [Epub ahead of print]

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ON FOUNDATION FUNDED PROJECTS (CONTINUED)

TITLE	GRANTEE	JOURNAL
Risk stratification of adult emergency department syncope patients to predict short-term serious outcomes after discharge (RiSEDS) study	Thiruganasam-bandamoorthy, V. Stiell, I.G.	BMC Emerg Med. 2014 Mar 14;14:8
Perioperative cardiovascular system failure in South Asians undergoing cardiopulmonary bypass is associated with prolonged inflammation and increased Toll-like receptor signaling in inflammatory monocytes	Trop, S. Verma, S.	J Surg Res. 2014 Mar;187(1):43-52
Glucose-induced inhibition of the appetitive brain response to visual food cues in polycystic ovary syndrome patients	Van Vugt, D.A.	Brain Res. 2014 Apr 16;1558:44-56
The association between renal replacement therapy modality and long-term outcomes among critically ill adults with acute kidney injury: a retrospective cohort study	Wald, R.	Crit Care Med. 2014 Apr;42(4):868-77
Changes in quality of life after epilepsy surgery: the role of reprioritization response shift	Wiebe, S.	Epilepsia. 2014 Sep;55(9):1331-8
Autophagy gene fingerprint in human ischemia and reperfusion	Yanagawa, B. Verma, S.	J Thorac Cardiovasc Surg. 2014 Mar;147(3):1065-1072.e1

2015 GRANTEE ANNUAL MEETING PRESENTERS

DR. MAITREYA COFFEY, HOSPITAL FOR SICK CHILDREN

Dr. Coffey received her M.D. from the University of Chicago. She completed residency at the University of Washington where she served as Chief Resident. She is a Staff Paediatrician in the division of Paediatric Medicine and Medical Officer for Patient Safety at the Hospital for Sick Children, as well as a Project Investigator at the SickKids Research Institute. She is also an Assistant Professor and Associate Director of the Centre for Patient Safety in the Department of Paediatrics at the University of Toronto.

Dr. Coffey's research interests are in patient safety, including medication safety, epidemiology, patient handoffs, and detection of adverse events and disclosure. She has created and led several patient, divisional and hospital quality and safety initiatives.

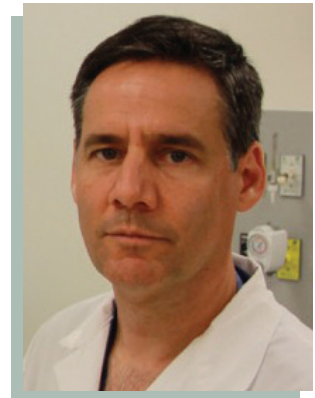


Dr. Maitreya Coffey

DR. IAN GILRON, QUEEN'S UNIVERSITY

Dr. Gilron is a Professor in the Department of Anesthesiology & Biomedical Sciences and Faculty in the Centre for Neuroscience Studies at Queen's University. He obtained his M.D. from the University of Ottawa and a M.Sc. in Neurological Sciences from McGill University.

Dr. Gilron has received three grants from the PSI Foundation since 2000. His research focuses on mechanisms of, and treatments for chronic and acute pain. He has published in journals such as the New England Journal of Medicine and Lancet.



Dr. Ian Gilron

2015 RESIDENT POSTER PRESENTERS

DR. STEPHEN CHOI, UNIVERSITY OF TORONTO

Dr. Choi is currently an Assistant Professor at the University of Toronto, an Affiliate Scientist at Sunnybrook Research Institute, and a Staff Anesthesiologist at Sunnybrook Health Sciences Centre. He received his medical degree from Western University. Dr. Choi was funded by PSI in 2008, along with his supervisor Dr. Richard Brill. His research project entitled "Post-operative epidural analgesia after minimally invasive lumbar decompression and fusion" resulted in a publication in the Canadian Journal of Anesthesia in 2014.

DR. BARBARA BIELAWSKA, QUEEN'S UNIVERSITY

Dr. Bielawska is currently a Resident in the Gastroenterology program at the University of Toronto. She received her medical degree from Queen's University. Dr. Bielawska was funded by PSI in 2013, along with her supervisor Dr. Lawrence Hookey. Her research project title is "Endoscopist factors and risk of perforation in adult colonoscopy: an Ontario population-based study."

DR. JEFFREY PERNICA, UNIVERSITY OF OTTAWA

Dr. Pernica is currently an Assistant Professor in the Department of Pediatrics and the Head of the Division of Pediatric Infectious Disease at McMaster University. He received his medical degree from Dalhousie University. Dr. Pernica was funded by PSI in 2008, along with his supervisor Dr. Robert Slinger. His research project "PCR testing of respiratory secretions for *S. Pneumoniae*, atypical pathogens, and pneumococcal macrolide resistance genes in paediatric community-acquired pneumonia: a pilot study" resulted in a publication in the Canadian Journal of Infectious Diseases & Medical Microbiology in 2014.

DR. ERICK DUAN AND DR. JOHN CENTOFANI, MCMASTER UNIVERSITY

Dr. Duan is currently a Resident in Critical Care Medicine at McMaster University. Dr. Centofanti is currently a resident in Anesthesiology at McMaster University. Both received their medical degrees from McMaster as well. Drs. Duan and Centofanti were funded by PSI in 2012 along with their supervisor Dr. Deborah Cook. Their research project is entitled "ICU Daily Goals Checklist: a mixed methods analysis of effects on communication & patient care."

DR. STEPHEN PETIS, WESTERN UNIVERSITY

Dr. Petis is currently a Resident in Orthopedic Surgery at Western University. He received his medical degree from McMaster University. Dr. Petis was funded by PSI in 2013 along with his supervisor Dr. Edward Vasarhelyi. His research project is entitled "A randomized trial comparing the direct lateral, anterior, and posterior approach: imaging and clinical outcomes in total hip arthroplasty."

DR. DANIEL HESSE, QUEEN'S UNIVERSITY

Dr. Hesse is currently a Clinical Fellow in Orthopedic Surgery at Queen's University. He received his medical degree from the University of Toronto. Dr. Hesse was funded by PSI in 2011 along with his supervisor Dr. John Rudan. His research project is entitled "Using computer assisted surgical techniques to enhance the accuracy of the distal tibial cut in total ankle arthroplasties."

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 physician.



GET INVOLVED

If you are interested in volunteering with PSI, please consider:

- Becoming a delegate: the House of Delegates meets annually with the mandate of overseeing the Board of Director's actions.
- Becoming a Director: PSI draws most of its Directors from the House of Delegates.
- Joining a committee: PSI has several working committees - including Grants and Finance Committees, for which PSI requires expertise in such areas as medical research and the financial sector.

DONATE

While PSI does not actively solicit funds, PSI is a registered charity and can provide tax receipts for charitable donations.

Please consider the above while reviewing PSI's accomplishments identified in this annual report.



Research & Education Funded by the Physicians of Ontario

