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The Garron Family Cancer Centre (GFCC) at SickKids is an innovative and collaborative initiative that brings together scientists, clinicians and educators from across the hospital to advance treatment of paediatric cancer. Approaching care in an integrated way offers the most promise to improve the overall health of children with cancer.
Executive Message

The Garron Family Cancer Centre (GFCC) at the Hospital for Sick Children is pleased to present this annual report for 2013-2014, which provides an overview of the clinical, educational and research activities of the Centre during the last year.

Notable highlights of the Centre’s accomplishments in 2013-2014 include:

- Research in the laboratory of Dr. Michael Taylor, Garron Family Chair in Childhood Cancer Research, led to the identification of epigenetic changes underlying a deadly type of brain tumour called ependymoma, providing a new target for treatment strategies being developed at SickKids;

- Appointment of Dr. Peter Dirks, a renowned neurosurgeon and cancer stem cell researcher, as the fourth Garron Family Chair in Childhood Cancer Research;

- The clinical teams increased chemotherapy safety through a quality improvement project focused on attaining earlier start times for delivery of chemotherapy; to date, this project has exceeded target, with 79% of patients initiating chemotherapy before 6 p.m;

- The Chemotherapy Safety Committee standardized the administration of 23 chemotherapy agents and revised approximately 80 corresponding order sets;

- On October 31, 2013 the GFCC, together with members of the Garron Family and the Minister of Health and Long-Term Care, officially opened the Garron Family MIBG Suite.

- A record number of families participated in the 2014 Haematology/Oncology Sibling Appreciation and Education Day, including 39 siblings between the ages of 3.5 to 17 years. Altogether, there were 135 participants at the family breakfast, recognition ceremony, lunch and fun fair.

- The Toronto chapter of Gilda’s Club initiated an inpatient parent wellness program to complement existing patient-support services with onsite classes in yoga, zumba, and Tai Chi.

We are grateful to the many patients and families from across Ontario and Canada whom our Centre is privileged to serve; to our devoted team of clinicians, educators and researchers who are to dedicated to our vision, Healthier Children. A Better World. Thank you to our most generous donors, and our many other supporters who are making the aspirations and achievements of the GFCC a reality.

Sincerely,

James A. Whitlock, MD
Director, Garron Family Cancer Centre
Division Head, Haematology/Oncology/BMT
Women’s Auxiliary Millennium Chair in Haematology/Oncology/BMT
Senior Associate Scientist, Child Health Evaluative Sciences, Professor of Paediatrics, University of Toronto
**Vision**

Better outcomes for children with cancer through multi-disciplinary collaboration, discovery and innovation.

**Mission**

The mission of the GFCC is to facilitate and catalyze innovation in multi-disciplinary research, clinical care and education. Discovery and translation of new knowledge will transform clinical practice and improve clinical outcomes and quality of life for children and their families affected by cancer.

**Priorities**

The GFCC leadership has identified three strategic priorities that align with and leverage existing institutional and programmatic strengths. These priorities provide a framework for the centre’s activities and investments arising out of our strategic plan.

The three strategic priorities are:

- Innovative Cancer Therapies
- Personalized Cancer Care
- Cancer Stem Cell Biology

**Goals**

The three broad goals of the GFCC are:

- to facilitate and promote innovation in multi-disciplinary cancer research
- to facilitate and promote innovation in multi-disciplinary evidence-based cancer care
- to facilitate and promote innovation in multi-disciplinary cross program cancer education

The GFCC fosters innovative, novel and collaborative research that will transform our understanding of how cancer arises and progresses, and how we diagnose, treat and care for children with cancer.
Leadership Team

GFCC Leadership

Executive Council

Chair
James A. Whitlock, MD
Director, Garron Family Cancer Centre
Division Head, Haematology/Oncology
Women’s Auxiliary Millennium Chair in Haematology/Oncology/BMT
Senior Associate Scientist, Child Health Evaluative Services

Brent Derry, PhD
Senior Scientist, Developmental and Stem Cell Biology Program, Research Institute

Meredith Irwin, MD
Clinician-Scientist, Division of Haematology/Oncology/BMT, and Senior Scientist, Cell Biology Program, Research Institute

David Kaplan, PhD
Senior Scientist, Neuroscience and Mental Health Program, Research Institute

David Malkin, MD
Clinician-Scientist, Division of Haematology/Oncology/BMT,
Senior Scientist, Genetics & Genome Biology Program, Research Institute

Michael Taylor, MD, PhD
Neurosurgeon, Division of Neurology
Garron Family Chair in Childhood Cancer Research
Senior Scientist, Developmental & Stem Cell Biology

Judy Van Clieaf, RN, BScN, MN
Vice President, Clinical

Sue Zupanec, NP, MN
Nurse Practitioner, Division of Hematology/Oncology/BMT

Ex officio
Colin Hennigar
Associate Director, Major Gifts, SickKids Foundation

The Garron Family Cancer Centre is working everyday to improve outcomes and quality of life for patients with cancer.
The clinical oncology program at SickKids is the largest and busiest in Canada. In 2013-14 the oncology team diagnosed 374 new cases of cancer, performed 169 cancer-treatment surgeries, 94 bone marrow transplants and delivered radiation therapy to 114 patients. The GFCC continues to test innovative cancer treatments through clinical trials, with a total of 253 enrollments this year.
Enhancing Care through Quality Improvement Initiatives

The clinical care teams in the GFCC are dedicated to enhancing safety for patients who receive chemotherapy. A current focus of quality improvement efforts is to increase the proportion of patients who receive chemotherapy during the day shift, when a full complement of pharmacy and other allied health staff are available. This effort has the benefit of also decreasing the length of stay for hospitalized patients by improving the efficiency of their care. Through close collaboration with ambulatory and day hospital teams who care for patients receiving chemotherapy, the clinical teams have streamlined the inpatient admission process. A number of specific projects have been undertaken as a part of these efforts; one of the first was implementation of a Rapid Hydration protocol that has been integrated as a standard of care for patients at SickKids. This protocol received Accreditation Canada recognition as a Leading Practice in 2013, by reducing the number of hours patients receive pre-chemotherapy hydration, and increasing the proportion of patients who receive chemotherapy during the daytime (see “Patient Discharges before 2:00 p.m.” chart on page 9).

Preserving Future Life

A common side effect of intensive chemotherapy treatment is the loss of fertility. Dr. Abha Gupta, Staff Oncologist, is leading a novel study to prospectively measure hormone markers of ovarian function in young girls undergoing chemotherapy treatment. Based on a survey of patient preferences regarding fertility preservation, Dr. Gupta and Dr. Armando Lorenzo, Staff Urologist, launched a formal Fertility Preservation Program for all cancer patients at SickKids. This innovative pilot project, supported by the GFCC, will ensure delivery of high-quality information to patients irrespective of age, gender, diagnosis and prognosis. The goals of this innovative program include:

• Standardizing delivery of information to patients and families about preservation of fertility prior to therapy.

• Creating culturally sensitive, age appropriate visual tools to optimize the delivery of fertility information (Supported by the Mary Jo Haddad Innovation Fund).

• Developing standardized documentation tools to track counseling, banking, outcome of fertility preservation attempts and patient status.

Milestones

CHILD SAFETY IMPROVEMENTS:
The clinical teams increased chemotherapy safety through a quality improvement project focused on attaining earlier start times for delivery of chemotherapy; to date, this project has exceeded target, with 79% of patients initiating chemotherapy before 6 p.m.

THE CHEMOTHERAPY SAFETY COMMITTEE
standarized the administration of 23 chemotherapy agents and revised approximately 80 corresponding order sets.

SIBLING APPRECIATION DAY:
A record number of families participated in the 2014 Haematology/Oncology Sibling Appreciation and Education Day, including 39 siblings between the ages of 3.5 to 17 years. Altogether, there were 135 participants at the family breakfast, recognition ceremony, lunch and fun fair.

WELLNESS PROGRAM:
The Toronto chapter of Gilda’s Club initiated an inpatient parent wellness program to complement existing patient-support services with onsite classes in yoga, zumba, and Tai Chi.
Leaders in Care

Neuroblastoma is the most common cancer in infancy and the most common extracranial solid cancer in childhood. The GFCC now offers MIBG (metaiodobenzylguanidine) internal radiation therapy for selected patients with neuroblastoma and neuroendocrine tumors.

The Garron Family MIBG Suite at SickKids is the first high-dose MIBG suite in Ontario, the second in Canada and one of only 13 in North America. The MIBG Suite will offer new treatment options for children from across Canada with relapsed neuroblastoma. Prior to opening the Garron Family MIBG Suite, many Canadian children needed to travel to the U.S. to obtain this treatment, resulting in added financial and emotional strain for families.

The vision for the new MIBG Suite supports The GFCC and SickKids’ commitment to innovation and to providing Canadian children and their families living with cancer access to cutting-edge treatments that improve clinical outcomes and quality of life.

Incisionless Surgery

A clinical team led by Dr. James Drake, Head of Neurosurgery and Dr. Michael Temple, Interventional Radiologist, performed a specialized procedure that uses ultrasound and magnetic resonance imaging (MRI) to destroy a tumour without incision. The innovative technique used an MRI to guide high-intensity ultrasound waves to destroy a painful, benign bone tumour called osteoid osteoma. The technology has been used to treat osteoid osteoma in Europe, but this was a first for North America and there is great potential for its use in the treatment of soft-tissue tumours. This GFCC-supported breakthrough is the result of research from the Centre for Image-Guided Innovation and Therapeutic Intervention (CIGITI) at SickKids. The procedure was performed by SickKids staff at Sunnybrook Health Sciences Centre with support from Sunnybrook’s MRI and Radiation Oncology staff.

On October 31, 2013 the GFCC, together with members of the Garron Family and the Minister of Health and Long-Term Care, officially opened the Garron Family MIBG Suite.

Jack Campanile and Dr. James Drake
NEW DIAGNOSES BY CANCER TYPE (2013/14)

- Leukemia & Lymphoma: 169 cases
- Central Nervous System: 81 cases
- Solid Tumour: 124 cases

GFCC CLINICAL TRIAL ENROLLMENTS

<table>
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<th>Year</th>
<th>Total Enrollment</th>
<th>Non Therapeutic</th>
<th>Therapeutic</th>
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<tr>
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<td>253</td>
<td>150</td>
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</tbody>
</table>

PATIENT DISCHARGES BEFORE 2:00 P.M.

- PERCENT
- MEDIAN
- TARGET
SickKids excels at translating basic research discoveries such as the molecular and genetic basis of childhood cancer, into new treatments and therapies. Over the past year, SickKids researchers have reported monumental discoveries that are changing the way the world approaches cancer diagnosis and treatment.
Move to the Peter Gilgan Centre for Research and Learning

On September 17, 2013, SickKids celebrated the official opening of the Gilgan Centre. The 21-storey Centre is located at 686 Bay Street and is now home to over 2,000 researchers, trainees and staff. The building was designed to enhance collaboration by bringing scientists together in research neighbourhoods. Occupying the 16th, 17th and 18th floors, the Garron Family Cancer and Stem Cell Biology neighborhood is home to researchers across multiple academic programs and disciplines.

The Garron Family Cancer Centre is designed to enhance and integrate all aspects of cancer research, learning and care.

Milestones

PETER DIRKS, MD, PhD, a renowned neurosurgeon and cancer stem cell researcher, was appointed to the fourth Garron Family Chair in Childhood Cancer Research.

MICHAEL WILSON, PhD, Scientist, Genetics & Genome Biology awarded Canada Research Chair for his research into gene control in paediatric diseases.

LEE DUPUIS, Health Clinician Scientist, was granted her Doctorate of Philosophy from the University of Amsterdam with a thesis titled “Optimization of Pediatric Haematopoietic Stem Cell Transplant Outcomes through the Application of Pharmacokinetics and Supportive Care.”

SUMIT GUPTA, MD, Staff Oncologist, led an editorial calling for paediatric cancer to be made a global child heath priority with the goal of reducing global childhood cancer mortality and optimizing outcomes for children living with cancer in resource-poor environments.

EXTERNAL RESEARCH FUNDING:
In 2013-2014, SickKids cancer researchers received more than $20 million of external funding through individual and team grants.
Pitblado Discovery Grant Competition

The 2014 Pitblado Discovery Grant Competition was held in April with a total of 25 applications submitted. A panel of expert reviewers assessed the applications and the GFCC awarded 5 grants for a total of $250,000. A second competition for Clinical projects will be held later this year.

Cynthia Guidos, PhD
Project Title: “Identification of therapeutically targetable signaling pathways in high-risk B-ALL”

Cynthia Guidos’ research group will use an innovative high-throughput method called Phospho-Flow Cytometry (PFC) to identify therapeutically targetable signaling pathways in individual cells from patients with high risk B-cell Acute Lymphoblastic Leukemia (B-ALL). They will determine if this strategy can predict which pathway-targeted drugs are best suited to treat each individual patient, providing a “personalized” approach to treat B-ALL.

Annie Huang, MD, PhD
Project Title “Mapping the functional genome of CNS-PNETs”

A collaborative team led by Annie Huang will create genetic maps of an understudied group of very aggressive paediatric brain tumours called Primitive Neuroectodermal Tumours (PNETs). The discoveries made from this work could lead to immediate improvements in the diagnosis and treatment of patients with this disease.

Meredith Irwin, MD
Project Title: “Utilizing CRISPR technology to identify novel regulators of oncogenes in High Risk Neuroblastoma”

The research group led by Meredith Irwin will use a cutting edge laboratory technology, called CRISPR, which allows researchers to edit the genome of individual cells. Her team will use this technology to study specific genes which are expressed at abnormally high levels in neuroblastoma tumours. This work will help determine the role of these oncogenes in development of the disease, and potentially uncover new therapeutic targets.

Ran Kafri, PhD
Project Title: “Confronting the mechanisms and roles of cell enlargement in tumorigenesis”

Ran Kafri of the Cell Biology Program was selected as the 2014 Younger Foundation Young Investigator Award recipient. The award, co-funded by the Younger Foundation and The Herman Family Children’s Cancer Research Fund, supports an outstanding research project proposed by an investigator in the early stage of their scientific career. Ran Kafri was recruited to SickKids from Harvard in September 2013, bringing with him outstanding expertise in the study of cell growth and proliferation in cancer development.

Recognizing that increased cell size is a hallmark of cancer development, Ran Kafri’s research lab will utilize a number of novel pharmacologic compounds to study the underlying mechanisms that control cellular enlargement. They will also test if the compounds discovered through this study have anti-tumour properties and whether manipulating cell size is a potential therapeutic approach.
Jane McGlade, PhD
Project Title: “Regulation of CXCR4 signaling in SHH sub-group medulloblastoma”

Jane McGlade’s research team will study a novel gene, RNF115, which is turned on in medulloblastoma, the most common malignant paediatric brain tumour. Her lab will study the effects of manipulating RNF115 levels on medulloblastoma cell behaviour and tumour development, to determine its potential as a therapeutic target.

The Pitblado Discovery Grant Competition is made possible by a generous gift from the Pitblado Foundation.

The Gilgan Centre is a state-of-the-art 750,000 square feet, 21-storey research facility to support interdisciplinary research by interaction and collaboration.

Molecular Cancer Diagnostics Initiative

The GFCC is funding an initiative within the Department of Paediatric Laboratory Medicine to establish state-of-the-art clinical-grade molecular cancer diagnostics as a part of its Personalized Cancer Medicine program for the treatment of paediatric cancers at SickKids. This three-phase project, led by Cynthia Hawkins, MD, PhD, Staff Neuropathologist, Gino Somers, MBBS, PhD, Pathology Division Head, Adam Shilen, PhD, Associate Director, Molecular Diagnostics and colleagues, is well underway. Phase I of the project, which will implement array-based single nucleotide polymorphism (SNP) and comparative genomic hybridization (CGH) technologies in the clinical setting, is nearing completion. Funding has been approved for the second phase of the project, which will establish direct multiplexed measurement of specific nucleic acid molecules through the application of NanoString technologies; the third phase of the project will implement Next Generation Sequencing technologies for diagnostic use. Execution of this ambitious initiative will establish SickKids as a leader in paediatric molecular diagnostics, improving outcomes for our patients and those across Canada. The Molecular Cancer Diagnostics Initiative is made possible by funding from the Rally for Kids with Cancer Foundation.

SickKids and the GFCC recognize that collaborative and innovative research teams are required to advance our understanding of cancer and improve treatment outcomes. With the support of generous donors, the GFCC is able to partner with national funding agencies by providing matching funds for team grants. The GFCC has made long-term commitments, totaling $700,000 to partner with the W. Garfield Weston Foundation - Brain Canada to fund a project led by Dr. Freda Miller and colleagues entitled “Recruitment of endogenous neural stem cells to promote repair following acquired brain injury in children” and with the Canadian Institutes of Health Research to support a team including SickKids’ investigators Dr. Paul Nathan and Dr. Shinya Ito studying the late effects of childhood cancer treatment.
Selected Research Advances

Peter Dirks, MD, PhD
Dr. Peter Dirks, Garron Family Chair in Childhood Cancer Research, along with his research group, have identified a potential genetic culprit in the relapse of medulloblastoma. Using a mouse model, they found that while traditional chemotherapy killed the majority of rapidly dividing tumour cells, a rare group of slowly-dividing cells survived the treatment and were left behind to grow and cause relapse. Using a laboratory technique called lineage tracking, they identified this small population of surviving cells as those positive for the stem cell marker Sox2. Several chemotherapy drugs were tested on these cancer stem cells and the team found that the drug mithramycin was effective at reducing tumour growth in mice. It is the hope that precise targeting of this unique group of cells will lead to better long-term outcomes for medulloblastoma patients. The study was published in Cancer Cell in June 2014.

Cynthia Hawkins, MD, PhD
A research team led by Cynthia Hawkins of the Department of Paediatric Laboratory Medicine and the Arthur and Sonia Labatt Brain Tumour Research Centre defined potential treatment targets for a currently incurable brainstem tumour called Diffuse Intrinsic Pontine Glioma (DIPG) in a study recently published in Nature Genetics. DIPG provides doctors with few treatment options because the cancerous cells are interspersed among normal brain cells and these tumours are located in a region of the brain that controls vital processes such as breathing and heart function. The Hawkins lab studied the genetic makeup of these tumours and found that DIPG is comprised of three distinct subgroups, each with unique genes driving tumour behaviour. By gaining a better understanding of the genetics of these tumours, it is expected that targeted treatments can be developed and tested very soon.

Meredith Irwin, MD
Funding from the James Birrell Fund for Neuroblastoma Research, and the GFCC’s Sears Childhood Cancer Fellowship supported research in Dr. Meredith Irwin’s lab investigating best treatment options for patients based on subtype of neuroblastoma metastasis. The research team looked at Stage 4 neuroblastoma that has spread to distant lymph nodes and found that patients in this subgroup have a higher chance of being cancer-free after five years than other patients with metastasis. The difference in outcomes for this subgroup could mean less aggressive treatment is required, leading to fewer side effects and improvements to quality of life. The report of these findings by Dr. Irwin and primary author Dr. Daniel Morgenstern was the recipient of the prestigious Brigid Leventhal award Special Merit Award for best paediatric cancer abstract at the 2014 annual meeting of the American Society of Clinical Oncology, and was recently published in the Journal of Clinical Oncology.

Donald Mabbott, PhD
Don Mabbott and Eric Bouffet, MD, Garron Family Chair in Childhood Cancer Research, received Health Canada and SickKids Research Ethics Board approval for a pilot clinical trial asking whether the Type 2 diabetes drug metformin together with exercise will promote anatomical and cognitive recovery in children who have acquired brain injury (ABI) as a consequence of cranial irradiation received during their treatment for brain tumours. This work was a direct outcome of the translation of basic research findings from Freda Miller, PhD, Neurosciences and Mental Health, who published in Cell Stem Cell that metformin stimulates stem cells in the brains of mice to produce new neurons, leading to enhanced learning and memory. This dramatic example of translation of basic research findings to the clinic was supported by a co-funding partnership of the GFCC and Drs. Miller and Mabbott’s team grant from the W. Garfield Weston Foundation – Brain Canada.
Paul Nathan, MD, MSc
An international research team led by Dr. Paul Nathan, Director of the Aftercare Program in Haematology/Oncology published an important study in the journal *Lancet Oncology* in June 2014 entitled “Risk of late effects of treatment in children newly diagnosed with standard-risk acute lymphoblastic leukemia: a report from the Childhood Cancer Survivor Study cohort”. The SickKids-led team used longitudinal data from the Childhood Cancer Survivor Study of five-year survivors of childhood cancer to assess the risk for long-term health problems associated with current therapies for ALL and determined this risk to be low. “This is one of the first studies to show that in addition to their excellent probability of survival, long-term survivors of standard-risk childhood ALL are at low risk for complications of their therapy once they enter adulthood,” says Dr. Nathan.

Michael Taylor, MD, PhD
A team led by Dr. Michael Taylor, Garron Family Chair in Childhood Cancer Research, discovered that epigenomic alterations are responsible for drug resistance in a deadly subgroup of ependymomas, the third most common brain tumour type diagnosed in children. These DNA changes are not mutations, as are classically associated with cancer, but are differences in the way the DNA is packaged in ependymoma cells. This landmark study published in *Nature* identifies epigenetic modifiers as attractive therapeutic candidates for this deadly malignancy, including the drug decitabine, which is already approved to treat bone marrow cancer. Clinical trials to determine if this drug is effective for ependymoma treatment are in development.

Garron Family Chairs in Childhood Cancer Research
Chairs enhance the recruitment and retention of outstanding physicians and scientists working to advance child health by giving them the resources to conduct world-leading research and generate transformative new knowledge. Through a generous gift from the Garron family, the GFCC established five endowed Chair positions. The most recently appointed Garron Family Chair in Childhood Cancer Research is Dr. Peter Dirks. Dr. Dirks’s research is identifying new aspects of neural stem cell development and differentiation; his work offers new insights into the biological changes leading to glioblastoma; the most common type of brain tumour.

| Eric Bouffet, MD |
| Staff Neurooncologist, Division of Haematology/Oncology/BMT, Director, Brain Tumour Program, Senior Associate Scientist, Child Health Evaluative Sciences |

| Peter Dirks, MD, PhD |
| Staff Neurosurgeon, Division of Neurology, Senior Scientist, Developmental & Stem Cell Biology |

| Maarten Egeler, MD, PhD |
| Section Head Stem Cell Transplantation, Division of Haematology/Oncology/BMT, Senior Associate Scientist, Developmental & Stem Cell Biology |

| Michael Taylor, MD, PhD |
| Staff Neurosurgeon, Division of Neurosurgery, Senior Scientist, Developmental & Stem Cell Biology |
The future of cancer research is dependent on the development and training of young, bright researchers across multiple disciplines. The GFCC provides funding for Research Institute co-sponsored fellowships and GFCC fellowships to support the training of future researchers and clinicians in the field of cancer research and care.
GFCC Fellowships

The GFCC fellowships support clinicians, scientists and graduate students on an annual basis who are looking to advance their knowledge of cancer care and research. Through a competitive selection process the following fellowships were awarded for the 2013/2014 academic year:


Jacqueline Flank, Masters Student, Supervisor: Lee Dupuis, PhD, Health Clinician Scientist and Clinical Pharmacist.

Scotiabank Clinician Scientist Fellowship

Project: “Novel immunological mechanisms in stem cell transplantation” and “Cellular Therapy for severe viral infections in immune suppressed patients”

Dr. Joerg Kruger, Supervisor: Dr. Maarten Egeler, Section Head Stem Cell Transplantation, Garron Family Chair in Childhood Cancer Research.

Sears Childhood Cancer Fellowship

Project: “Mesenchymal stromal cell treatment for acute and chronic Graft-Versus-Host disease”

One of the goals of the GFCC is to facilitate and promote innovation in multi-disciplinary cross-program cancer education. Through Sears Canada’s generous donation, the GFCC is able to support young, bright Clinician Scientists through the Sears Childhood Cancer Fellowship; allowing young leaders in cancer research and care to focus their efforts on innovative projects at SickKids. In 2013, Dr. Hisaki Fuji (pictured at left) was named the Sears Childhood Cancer Fellow. Working under the supervision of Dr. Maarten Egeler, Section Head Stem Cell Transplantation, Garron Family Chair in Childhood Cancer Research; Dr. Fuji is researching new therapies in graft-versus-host disease (GVHD). Currently, there is no standard treatment for steroid-resistant GVHD, which is a significant clinical challenge.

Milestones

VISITING PROFESSOR:
Dr. Shai Izraeli, Professor of Pediatrics at Tel Aviv University, Head of the Functional Genomics Program at Sheba Medical Centre and a world-renowned leukemia researcher, was the Burton Visiting Professor at SickKids, May-July 2014.

2013 DAVID SMYTH FELLOWSHIP RECIPIENT:
Dr. Hisaki Fuji, Sears Cancer Fellow and trainee in the laboratory of Dr. Maarten Egeler, Garron Family Chair in Childhood Cancer Research, was the recipient of the 2013 David Smyth Fellowship, from the Canadian Blood and Marrow Transplant Group for his research project titled “Mesenchymal Stromal Cell Treatment in Xenogeneic Chronic Graft-versus-Host Disease Mouse Model.”

SickKids educates the world in child health. We train the best and the brightest to advance paediatric care.
Fellowships Co-funded with the SickKids Research Institute

During the past year, the GFCC provided funding for six trainees for clinical and basic research fellowships and studentships for cancer-related projects in SickKids Research Institute’s Research Training Centre through the Restracomp program. The recipients included:

Mushriq Al-Jazrawe, Graduate Student “Investigating the roles of PDGF and Wnt signalling in Aggressive Fibromatosis” (mentor: Ben Alman BA, MD, FRCSC, Adjunct Scientist, Developmental & Stem Cell Biology)

Manjunatha Ankathatti-Munegowda, Research Fellow “Novel strategies for osteosarcoma intervention by targeting the tumour microenvironment” (mentor: Jim Hu, PhD, Senior Scientist, Physiology & Experimental Medicine)

Orion Buske, Graduate Student “Analysis of Li-Fraumeni mutation data” (mentor: Michael Brudno, PhD, Director, Centre for Computational Medicine, Genetics & Genome Biology)

Matthew Mistry, Graduate Student “Identifying genetic alterations contributing to transformation of pediatric gliomas from low to high grade” (mentor: Uri Tabori, MD, Scientist, Genetics and Genome Biology)

Sarah West, Research Fellow “Pathophysiology of Exercise Intolerance in Children with Acute Lymphoblastic Leukemia” (mentor: Greg Wells, PhD, Associate Scientist, Physiology & Experimental Medicine). Generously supported in part by the Scott and Steve Cameron Family Endowment Fund.

Guang Yang, Research Fellow “The Identification of novel anti-cancer agents targeting neuroblastoma” (mentor: David Kaplan, PhD, Senior Scientist, Neurosciences and Mental Health). Generously supported in part by the James Birrell Fund for Neuroblastoma Research.

Annual Symposium

“What is New in Stem Cell Transplantation” – October 30, 2013

The GFCC hosts an annual symposium to educate centre members, the SickKids community and other interested parties about medical and scientific advances. In recent years there have been remarkable discoveries in the field of stem cell transplantation. In 2013, the GFCC hosted a symposium on stem cell transplantation focused on “What is New in Stem Cell Transplantation”. This interactive symposium was co-chaired by Dr. Maarten Egeler and Dr. Tal Schechter-Finkelstein, with administrative support from Irine Polyzogopoulos. The symposium included international, national, and local speakers who discussed recent advances in stem cell transplantation, addressed their impact on clinical care and short- and long-term future research directions. The symposium brought together 100 scientists, clinicians, trainees, and allied health professionals with representation from SickKids, St. Michael’s Hospital, Pediatric Oncology Group of Ontario (POGO), Kingston General Hospital, Princess Margaret Hospital, Cancer Care Ontario and Children’s Hospital of Western Ontario (LHSC).

In addition to the GFCC Annual Symposium, the GFCC provides support for seminars, workshops and symposia throughout the year including:

- September 2013: Emerging Frontiers in Cancer Biology and Therapy: The symposium was co-sponsored by the GFCC and the Developmental & Stem Cell Biology Program.

- November 2013: Uncovering new players in the microRNA pathway: The seminar was co-sponsored by the GFCC and Developmental & Stem Cell Biology Program.
Awards

Ronald Grant, MD, received the Richard Rowe Award for Clinical Excellence, which recognizes a Faculty member for demonstrated excellence in clinical paediatrics in the Department of Paediatrics.

Meredith Irwin, MD, Staff Oncologist, Senior Scientist Cell Biology, was recognized by Israel Cancer Research Fund (ICRF) with a 2013 Women of Action Award in recognition of her neuroblastoma research. Israel Cancer Research Fund's Women of Action Award honours outstanding women for their contributions to society and achievements in advocacy, business, health sciences and philanthropy.

Don Mabbott, PhD, C. Psych, ABPP-CN was appointed to the role of Chief Academic and Professional Practice in the Professional Practice Portfolio at SickKids.

David Malkin, MD, Senior Staff Oncologist, Director Cancer Genetics Program, GFCC Executive member, was awarded the inaugural Transformational Leadership Award from the Canadian Cancer Society, which recognizes an individual or a group that has played a part in transformational change within the Canadian Cancer Society through their exceptional contributions and selfless volunteer leadership.

James Rutka, MD, PhD, Senior Scientist, Neurosurgeon and Director of the Arthur and Sonia Labatt Brain Tumour Research Centre, has been appointed to the Order of Ontario for his outstanding research accomplishments.

Sharleen Sawicki, RN, was the recipient of the 2014 Grace Evelyn Simpson Nursing Award for Excellence in Staff Nursing. This award recognizes SickKids nurses for demonstrated excellence in nursing practice, education, leadership, research or innovation.

Judy Van Clieaf, RN, BScN, MN, GFCC Executive member, was awarded The Hospital for Sick Children's President's Award for her personal commitment, professional growth, leadership and ambassadorship which has promoted, enabled and created a culture of service excellence.

Sheila Weitzman, MD was one of two recipients of the 2014 Medical Staff Association (MSA) Citizenship Award. Each year, the MSA Citizenship Award is presented to a member nominated by colleagues for their delivery of extraordinary service to the SickKids and/or larger hospital community, their advocacy of fairness, equity, mutual respect and effective communication, and their support of diversity and a positive and safe working environment.

Sue Zupanec, NP, MN, was appointed Chair, Nursing Education Subcommittee for the Children’s Oncology Group. The Children’s Oncology Group (COG), a National Cancer Institute supported clinical trials group, is the world’s largest organization devoted exclusively to childhood and adolescent cancer research.

SickKids is home to the largest paediatric oncology training program in the country and has trained nearly 80 per cent of all practicing paediatric oncologists in Canada.
Dr. Peter Dirks, Staff Neurosurgeon and his patient Hugh.
TOGETHER WE WILL CHANGE THE FUTURE
OF PAEDIATRIC CANCER

We continue to make great strides
in an effort to understand the root of cancer,
create new therapies, and develop cures to fight cancer.

With the generous support of our donors
and the excellence of our staff, the GFCC will continue to offer
the best possible health outcomes for children with cancer
so that they can live happier, healthier and more productive lives.