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The Annual Scientific Report of
The Arthur and Sonia Labatt Brain Tumour Research Centre
at The Hospital for Sick Children
This past year has been characterized by many significant scientific advances in the field of brain tumour research. We are pleased that some of these have been made within the Arthur and Sonia Labatt Brain Tumour Research Centre (BTRC). Mouse models which we (Dr. Guha’s Lab) developed a couple of years ago continue to be advanced and developed. Dr. McGlade continues to help us in unfolding the mechanisms of tumorigenesis through an increased understanding of signal transduction mechanisms. Dr. Rutka continues to increase our understanding of astrocytoma and medulloblastoma growth and treatment. Dr. Dirks’ studies on stem cells have led to a key publication in *Nature* in November 2004. Dr. Huang has furthered our knowledge of the mechanisms controlling the growth of medulloblastoma and neuroblastoma with a key publication in *Cancer Research* 2005. Dr. Taylor began his research appointment with a seminal publication in *Cancer Cell* 2006 on the genetics of human ependymomas arising from radial glia progenitor cells.

We are also pleased to provide this summary of the progress made within the Labatt BTRC for the year 2005-2006. We hope you will appreciate our enthusiasm and dedication to the field of brain tumour research as you read through the pages of this new annual scientific report.

**Arthur and Sonia Labatt give generously again to the BTRC**

In December 2005, Arthur and Sonia Labatt generously gave another $2.5 million to the BTRC to increase the total endowment to $7.5 million. The new funds are being used to help transition the BTRC to its new location at the MaRS complex, to welcome and support new BTRC principal investigators, and to furnish the new laboratory space with state-of-the-art equipment for the latest studies on the molecular biology of human brain tumours. The BTRC is extremely grateful to the Labatts for their incredible gift at this time.
DEVELOPMENT AND GROWTH OF THE BTRC

On September 22, 1997, Arthur and Sonia Labatt donated $5 million to establish the University of Toronto Brain Tumour Research Centre (BTRC) at The Hospital for Sick Children (SickKids) and The University Health Network. This gift from the former President of Trimark Financial Corporation and his wife was the single largest contribution from a family in the history of The Hospital for Sick Children. The BTRC is a project that brings together scientists and clinicians studying the problem of human brain tumours from The Hospital for Sick Children and The University Health Network within the University of Toronto teaching hospitals system. The BTRC fosters excellence in brain tumour research, amalgamating the expertise of scientists, clinician-investigators, and physicians in a virtual laboratory environment at the University of Toronto. A stimulating research environment has been created allowing scientists to share ideas, resources and equipment in an atmosphere conducive to achieving excellence in molecular neurooncology research, scientific publications, and translational research.

Currently, the Arthur and Sonia Labatt BTRC is situated on the third floor of the Elizabeth McMaster Building at The Hospital for Sick Children. Approximately 3500 sq. feet of conjoined space has been renovated and remodeled to form the physical site. The space is comprised of state-of-the-art laboratory bench space fashioned in an “open concept” model. In 2004, two new labs were constructed on the third floor of McMaster adjacent to the Labatt BTRC, and have been occupied by the lab groups of Dr. Peter Dirks and Dr. Annie Huang.

About the BTRC logo

The Arthur and Sonia Labatt Brain Tumour Research Centre logo was created at the time of the Grand Opening of the Centre, January 1999. The logo depicts a dove, symbolizing hope, carrying a twig in its beak. The twig is actually a piece of double-stranded DNA representing molecular medicine. Hence, the logo symbolizes the mandate of the BTRC which is “Hope through molecular medicine.”

Principal Investigators at the BTRC

Dr. Michael Taylor, Dr. Annie Huang, Dr. James Rutka, Dr. Jane McGlade, Dr. Peter Dirks, Dr. Ab Guha (left to right)
Dr. James T. Rutka
Co-Director Arthur and Sonia Labatt Brain Tumour Research Centre, Principal Investigator

Dr. Rutka’s laboratory has been studying the cytoskeleton as a means to increase our understanding of the mechanisms by which astrocytoma cells grow, adhere to surrounding substrates, and invade normal brain tissue. Current studies are aimed at investigating how cytoskeletal matrix interactions lead to the profound cellular changes we have observed through a detailed analysis of cell cycle gene alterations, metalloproteinase and inhibitor secretion, and ultrastructural cytoskeletal relationships. Recent emphasis has been placed on the small Rho-GTPases as potential targets for inhibiting astrocytoma invasiveness.

In a second project, we have focused additional research interests on the childhood brain tumour known as medulloblastoma. We are studying the contributions of the sonic hedgehog (SHH) signalling pathway in the pathogenesis of medulloblastoma. We have recently shown that an inhibitor of SHH signalling, Human Suppressor of Fused, is mutated in patients with medulloblastoma. Other members of the SHH pathway are currently being investigated, as are a number of candidate tumour suppressor genes identified through transcriptional profiling and SNP-chip array experiments.

Dr. Ab Guha
Co-Director Arthur and Sonia Labatt Brain Tumour Research Centre, Principal Investigator

Dr. Guha and his colleagues have shown that activated Ras is functionally relevant in human astrocytomas. Blockade of Ras signalling leads to decreased glioma growth. This activation is not only found within humangliomas, but also peripheral nerve tumours. Ras and other signalling pathways are activated by aberrant growth factor receptors in gliomas, such as the epidermal growth factor receptor (EGFR). Using state-of-the-art technologies, in collaboration with MDSProteomics, Dr. Guha’s lab is investigating Ras and other signalling pathways utilized by these receptors to promote growth of gliomas. It is hoped that drugs being investigated in the Guha lab to inhibit these receptors or their signalling pathways, will be ultimately efficacious in the clinic.

Another area of interest for the laboratory is the study of angiogenic factors. Brain tumours remain among the most angiogenic tumours known to man. In particular, vascular endothelial growth factor (VEGF) and Angiopoietins and their receptors are angiogenic specific and aberrant in human gliomas and peripheral nerve tumours. Dr. Guha’s laboratory is studying how VEGF and Angiopoietins stimulate and interact to promote angiogenesis, how they are regulated in normoxia and hypoxic conditions, as well as pharmaceutical inhibition in pre-clinical models to determine if they are relevant clinical therapeutic targets.
**Dr. Jane McGlade**  
*Senior Scientist, Principal Investigator*

Dr. McGlade's research is directed towards understanding the molecular changes which occur during the process of malignant cell transformation. Work in the lab involves several aspects of signal transduction and the identification and characterization of novel signalling molecules.

Recently Dr. McGlade has focused specifically on one class of cytoplasmic adapter molecules and the role they play in the localization, integration and co-ordination of signalling cascade components within two distinct signalling paradigms. It is hoped that this work will have broad implications in terms of understanding temporal and spatial organization of mitogenic signal transduction pathways, as well as the process of asymmetric cell division, and epithelial cell polarity in mammals.

The long-term goal of this work is to define the molecular processes which regulate the formation and activation of signalling complexes and how disruption of this regulation can lead to cell dysfunction and malignant disease.

**Dr. Peter Dirks**  
*Scientist, Principal Investigator*

The long-term goal of Dr. Peter Dirks’ research program is to determine if a normal neural stem cell or progenitor cell is transformed into a brain tumour. Two approaches are being used to study this question. One approach involves a study of primary human brain tumours to determine if stem cell populations exist in brain tumours.

Our question: is there a small population of cancer cells in a brain tumour that uniquely has the ability to maintain the tumour? Dr. Dirks’ lab has recently isolated and characterized a repopulating cell from human brain tumours of different phenotypes that expresses neural stem cell markers and has stem cell-like behaviour in vitro. This subpopulation of tumour cells could be considered as cancer stem cells, because they share properties with normal stem cells and because they are necessary for maintaining tumour growth in vitro.

The second approach involves a study of the key determinants of proliferation and self-renewal in normal neural stem cells. We focus on the sonic hedgehog signalling pathway, as it is perturbed in primary human brain tumours (medulloblastomas), and because it has been shown to be critically important for normal brain development.

Our preliminary studies suggest that different Shh pathway members play important and distinct roles in neural stem cell proliferation and self-renewal. A better understanding of how this pathway functions in normal neural stem cells may help us to better understand brain tumour proliferation and self-renewal.
Dr. Annie Huang  
*Scientist, Principal Investigator*

Dr. Huang is studying the mechanisms of growth of human neuroblastomas and subtypes of medulloblastomas using cDNA microarray analyses. Genes that are up-regulated or down-regulated in these tumours will be further corroborated by RNA and protein analysis. Altered genes from this analysis will then provide important clues as to the key mechanisms involved in the growth of neuroblastomas and medulloblastomas.

Dr. Huang’s research focus is in the molecular biology of medulloblastoma, a paediatric cerebellar tumour. Her studies are directed at identifying biologic/genetic features of medulloblastoma that correlate with disease outcome, and in delineating the role of poor biologic prognosticators in the molecular pathogenesis of medulloblastoma.

One of her current studies utilizes the microarray technology to establish genomic and expression profiles of infant medulloblastoma, a group with particularly poor clinical outcomes. In a related project she is investigating how c-myc, an oncogene associated with an aggressive variant of medulloblastoma, interacts with different cellular genes to specify malignant cell transformation. The long-term goals of these studies are to refine current treatment stratification of children with medulloblastoma, and to gain insights into novel molecular pathways that may be targeted for therapy in medulloblastoma.

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**LABORATORY PERSONNEL**

Daniel Picard *Technician I*
Mei Hua Li *Post-Doctoral Fellow*
Lee Lyle *Graduate Student*
Tania Rodrigues *Graduate Student*
Paula Walasek *Research Technician II*
Limei Zhou *Research Associate*

**RESEARCH SUPPORT**

Brain Tumour Foundation of Canada
Cancer Care Ontario
Children’s Brain Tumour Foundation
CIHR
Eli-Lilly
Genome Canada
NCIC

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Dr. Michael D. Taylor  
*Scientist, Principal Investigator*

Dr. Taylor’s laboratory hopes to use the tools of forward and reverse genetics to better understand the underlying biology of medulloblastoma and ependymoma, two of the most common malignant paediatric brain tumours.

In forward genetic approaches, the normal cells that are thought to give rise to a cancer are perturbed in a systemic fashion in an attempt to determine which genes, or signalling pathways promote malignant transformation. By randomly over-expressing genes in the cellular precursor of medulloblastoma, we hope to determine which genes are important to the initiation, maintenance, and progression of medulloblastoma. This sort of functional genomic approach has recently been made feasible by the completion of the mouse genome project.

In reverse genetics, primary human tumours are studied in an attempt to determine the genetic events that lead to transformation. The Taylor lab is using a number of genome-wide techniques to identify novel tumour suppressor genes and oncogenes important in the pathogenesis of medulloblastoma and ependymoma.

Through an understanding of the genetic basis of brain tumours, it is hoped that novel, rational therapeutics may be developed that are more effective and less toxic than existing therapies. We hope that synergism between forward and reverse genetic approaches will allow us to identify key genes important in brain tumour biology.
A YEAR IN REVIEW

GRANTS

Dr. Dirks
CANADIAN INSTITUTES OF HEALTH RESEARCH Cellular and molecular characterization of cancer stem cells in human brain tumours
NATIONAL CANCER INSTITUTE OF CANADA A study of cancer stem cells in human brain tumours
GENOME CANADA Identification of pathways regulating survival and development of cancer and cancer stem cells
STEM CELL NETWORK OF CANADA High through-put screening of stem cells and cancer stem cells

Dr. Guha
ARRAYBIOPHARM Small molecule biological inhibitors
CANADIAN INSTITUTES OF HEALTH RESEARCH Function of GATA6 in Human Glioblastoma Multiforme
NATIONAL CANCER INSTITUTE OF CANADA Functional Analysis of GATA6 in human gliomas: A novel tumour suppressor gene identified from Genetically Engineered Murine (GEM) glioma model by gene-trapping

Dr. Huang
BRAIN TUMOUR FOUNDATION OF CANADA Identification of genetic markers of chemosensitivity in medulloblastoma tumours
CHILDREN’S BRAIN TUMOUR FOUNDATION Genomic analyses of paediatric supratentorial primitive neuroectodermal tumours
ELI-LILLY, CANCER CARE ONTARIO, CIHR Characterization of a novel family of Myc protein interactors and their role in medulloblastoma transformation
GENOME CANADA Development and validation of comparative genomic hybridization arrays for clinical use in cancer
NATIONAL CANCER INSTITUTE OF CANADA Biochemical and genetic analyses of JPO2, a novel c-Myc oncogene interacting protein

Dr. McGlade
CANADIAN INSTITUTES OF HEALTH RESEARCH LNX family ubiquitin ligases in cellular signaling and polarity
THE FOUNDATION FIGHTING BLINDNESS – CANADA Role of mammalian CRB1 in retinal morphogenesis and degeneration
NATIONAL CANCER INSTITUTE OF CANADA Role of the endocytic adaptor protein numb in normal development and cancer

Dr. Rutka
B.R.A.I.N.CHILD VEGF polymorphisms in medulloblastomas
CANADIAN INSTITUTES OF HEALTH RESEARCH The role of cytoskeletal GTPases in astrocytoma migration
NATIONAL CANCER INSTITUTE OF CANADA Role of hedgehog signalling in the pathogenesis of medulloblastoma
ONTARIO CANCER RESEARCH NETWORK Gli2 as a target for the treatment of medulloblastoma

PEDIATRIC BRAIN TUMOR FOUNDATION OF THE UNITED STATES (PBTFUS) Novel genetic approaches to medulloblastoma

Dr. Taylor
AMERICAN BRAIN TUMOR ASSOCIATION: EMILY DORFMAN FOUNDATION FOR CHILDREN FELLOWSHIP, 2005
CIHR INSTITUTE OF HUMAN DEVELOPMENT Functional genomic dissection of the initiation and progression of medulloblastoma
NEUROSURGERY RESEARCH AND EDUCATION FOUNDATION High resolution genotyping of pediatric medulloblastoma
NATIONAL BRAIN TUMOR FOUNDATION: ANDREW BRYCE PEDIATRIC GRANT A novel preclinical mouse model of medulloblastoma

DISTINCTIONS

Peter Dirks
Royal College Gold Medal Award in Surgery 2005
George Armstrong Peters Prize (Outstanding Academic Productivity in Research) 2005

James Rutka
Farber Award American Association of Neurological Surgeons 2005
The Janes Visiting Professorship of the Royal College of Physicians and Surgeons of Canada for 2006
Knight of the Order of Smile by Kawaler Orderu Usmiechu 2006

Ab Guha
President Society of Neurooncology 2005-2007
Indo-Canadian Chamber of Commerce Humanitarian of the Year Award 2005

Michael Taylor
Schweizguth prize International Society of Pediatric Oncology (SIOP) 2005
THIS YEAR IN THE BTRC

2006 Graduates

Sally Benn
Post-Doctoral Fellow

Christophe Debonneville
Post-Doctoral Fellow

Jenny Nie
Post-Doctoral Fellow

Qingxia Wei
Post-Doctoral Fellow

2006 PhD Graduates

Joseph Wiley
Identification of Novel Neurofibromin Interacting Proteins Using Epitope-Tagged Domains and Mass Spectrometry

Bodour Salhia
The role of the small RHO-GTPases in glioma invasion

Melanie McGill
Molecular and biochemical analysis of the Numb-Notch interaction

Dan Simoncic
The identification of substrates of the T-cell protein tyrosine phosphatase in cytokine signalling and hematopoiesis

2006 Masters Graduate

Mandeep Tamber
Masters Student

STUDENT AWARDS

Dr. Dirks
Phedias Diamandis CIHR MD/PhD Studentship
Ryan Ward Fonds de la recherche en sante, Toronto University Entrance Award, CIHR Canada Graduate Scholarship, NCIC PhD Studentship

Dr. Guha
Sameer Agnihotri Restracomp
Priya Bhola CIHR Graduate Scholarship, OSOTF
Aaron Gajadhar Restracomp
Deepak Kamnasaran CIHR PD Fellowship, Post Graduate Award, ABTA
Joydeep Mukherjee CTF Fellowship, Post Graduate Award
Amparo Wolfe MD/PhD

Dr. Huang
Mei Hua Li American Brain Tumor Association Post-doctoral Fellowship July 2006-June 2008; AACR Scholar-in-Training Awards (American Association for Cancer Research) April 2006

Dr. McGlaude
Kimberely Lau Restracomp
Larissa Liontos CIHR MD/PhD Studentship
Cheryl Wolting Terry Fox Scholarship from the National Cancer Institute of Canada

Dr. Rutka
Mandeep Tamber Johnson and Johnson Medical Products Surgeon-Scientist Fellowship in 2005-2006

Dr. Taylor
Paul Northcott University of Toronto Fellowship
Visiting Fellows

Anandh Balasubramaniam Fellow
INDIA

Jason Hwang Fellow
KOREA

Andrew Liang Fellow
TAIPEI, TAIWAN

Hirokatsu Osawa Fellow
JAPAN

Koichi Yoshikawa Fellow
JAPAN

DR. URI TABORI, NEW MEMBER JOINS THE BTRC

Dr. Uri Tabori will join the Arthur and Sonia Labatt Research Centre as a Scientist and Principal Investigator in the fall of 2007. Uri received his MD degree from Hadassah School of Medicine, Hebrew University, in Jerusalem, Israel. He then completed his paediatrics in Sorasky Medical Center, Tel-Aviv; and paediatric hematology/oncology Chaim Sheba Medical Center, Tel-Hashomer, Israel.

Uri then came to SickKids in 2003 to undertake a 3 year post-doctoral research fellowship in neurooncology under the guidance of Dr.’s Eric Bouffet and David Malkin. While working in the laboratory, Uri identified that maintenance of telomeres in paediatric low grade gliomas and ependymomas is inversely correlated with patient outcome. At the present time, Uri’s research focuses on mechanisms which enable tumours to recur and continue to progress. Uri hopes to utilize his research efforts now to identify novel therapeutic approaches to help children with brain tumours. Welcome Uri!
ANNUAL LABATT BTRC ACADEMIC VISITING LECTURESHP

The eighth annual Arthur and Sonia Labatt Brain Tumour Research Centre academic lecture took place on Thursday, January 26, 2006 at The Hospital for Sick Children.

Guest speaker, Dr. Webster Cavenee PhD is the Director of the Ludwig Institute for Cancer Research and Professor of Medicine at the University of California at San Diego. The topic of Dr. Cavenee’s lecture was “Defective Receptor Signaling in Human Brain Tumors: Mechanisms and Therapeutic Opportunities”.

2006 BTRC Visiting Lectureship Dr. Webster Cavenee

Previous BTRC Academic Guest Lecturers

1999 Dr. Robert Martuza Professor and Chairman, Department of Neurosurgery, Massachusetts General Hospital, Harvard University
2000 Dr. Gregory Cairncross Professor of Neurology, Director London Regional Cancer Centre, University of Western Ontario
2001 Dr. David Kaplan The Montreal Neurological Institute, McGill University
2002 Dr. Charles Stiles Dana Farber Cancer Institute at Harvard Medical School, Professor, Department of Microbiology and Molecular Genetics
2003 Dr. Luis Parada Southwestern Medical Center at the University of Texas at Dallas
2004 Dr. Eric Holland Associate Professor, Neurosurgery, Neurology & Cell Biology at Memorial Sloan-Kettering Cancer Center
2005 Dr. Darell Bigner Duke University Comprehensive Cancer Center
ADVISORY BOARD OF THE ARTHUR AND SONIA LABATT BRAIN TUMOUR RESEARCH CENTRE

Sonia and Arthur Labatt Benefactors
Dr. Jim Wright Surgeon-in-Chief, SickKids
Dr. Janet Rossant Chief of Research, SickKids Research Institute
Michael O’Mahoney President, SickKids Foundation
Mary-Jo Haddad CEO, SickKids
Dr. Robert S. Bell CEO, University Health Network
Dr. Christopher Paige Director Research, OCI/PMH
Professor Catharine Whiteside Dean, Faculty of Medicine
Helen Berman Benefactor
Dr. David Berman Scientific Advisor

WE ARE LANDING ON MaRS

On October 18, 2006, the Labatt BTRC moved from the 3rd floor of the Elizabeth McMaster Building one block north to the 11th floor of the Medical and Related Sciences (MaRS) building at the corner of College and Elizabeth Streets. With the successes of the BTRC over the last several years, more space was required for new Principal Investigators and their research personnel than could be obtained at the McMaster Building site. Accordingly, newly-renovated space that can accommodate the growing needs of the BTRC has been procured at MaRS. Interestingly, SickKids now occupies 4 floors at MaRS for many of its different research groups. We are pleased that the Labatt BTRC has joined them! In the next Annual Scientific Report from the Labatt BTRC, we will showcase the new and improved laboratories for brain tumour research at MaRS.

AFFILIATED SCIENTISTS

Cameron Ackerley PhD
Sylvain Baruchel MD
David Kaplan PhD
Normand Laperriere MD
Paul Muller MD
James Perry MD
Michael Schwartz MD
Eric Bouffet MD
Jeremy Squire MD
Cynthia Hawkins MD, PhD
Mark Bernstein MD
Sid Croul MD
MAJOR GIFTS

- **JACK MICHAEL BAKER FUND**  Brian and Erin Baker have established a fund to further our work on cancer stem cells in brain tumours. This donation is in honour of their son Jack Michael Baker.

- **LAURIE BERMAN FUND FOR BRAIN TUMOUR RESEARCH**  established in 2002 by Helen and Joe Berman in memory of their son Laurie. This fund provides ongoing support for graduate students, post-doctoral research fellows, lab equipment and supplies. The fund also enables neurosurgical nurses to attend the annual Canadian Congress of Neurological Sciences meeting.

- **NATHALIE CROSBIE ENDOWMENT FUND**  The Nathalie Crosbie Endowment Fund was created in 1998 by Jolie Lin and Ian Crosbie to support paediatric brain tumour research at SickKids. The fund is now fully endowed and enables scientists at the BTRC to perform research on medulloblastoma, the most common malignant brain tumour in childhood.

- **JONATHAN HILL FUND**  In 1997, Jonathan Hill, a vivacious, charismatic boy with an infectious smile, an irresistible charm, a beloved son and nephew, lost his courageous battle to a brain tumour at the age of eight. At the same time two of his cousins were fighting their own battles and both are survivors. Why? Mostly because of the tireless efforts of doctors and researchers who were able to develop life-saving treatments for their particular cancers. Paediatric cancer research has come a long way, and has resulted in treatments that improve the quality of life for children with cancer, and even produced higher cure rates. The Jonathan Hill Fund will specifically assist research in the areas of brain tumours and leukemia, two of the most common childhood cancers. This fund will help future children afflicted with cancer beat the odds and help keep Jonathan's memory alive.

- **ROCHELLE SHERWOOD FUND FOR BRAIN TUMOUR RESEARCH**  Judy Stein-Korte and Carl Korte gave generously to establish a fund to support research in the BTRC in honour of Judy's sister Rochelle who was diagnosed with a brain tumour. This endowment fund will be used to support ongoing research projects on esthesioneuroblastoma, medulloblastoma and primitive neuroectodermal tumours.

- **THE WILEY FUND IN BRAIN TUMOUR RESEARCH**  established in 2001 by Averil and Joe Wiley in honour of their son Andrew who was cared for by Dr. Rutka. This fund supports the ongoing research projects of two PhD students, and two post-doctoral research fellows.

- **BEQUEST FROM THE ESTATE OF ERIC YOLLES**  A bequest has been received from the estate of Eric Yolles to be used for furthering research in the BTRC.
ANNUAL FUND RAISING EVENTS

7th Annual BUNZL for b.r.a.i.n.child Golf Tournament. Each year, BUNZL Canada organizes a golf tournament that supports b.r.a.i.n.child through the Rigatoni for Research Dinner and Auction. This year’s golf tournament raised over $175,000 thanks to the efforts of Michelle Fletcher, Courtney Howlett, and BUNZL President, John Howlett. We would like to acknowledge the following major donors to this golf tournament: Anchor Packaging, Atlas Paper Bag, McNairn Packaging, Pactiv Canada, Par-Pak Ltd., Reynolds Food Packaging Canada, SCA Tissue Canada, and Scott Paper.

Amy’s Shining Star is a fundraising event organized biennially by Tim and Sue Scott in memory of their daughter Amy. This past year’s event in Aurora was held on April 2, and was highlighted by a dinner, dance and silent auction, which raised in excess of $25,000 for brain tumour research.

b.r.a.i.n.child is a group of parents, families and friends who have shared the common experience of caring for a child with a brain tumour. Formed in 1993, this volunteer organization provides support and education to other parents and patients as well as public education on the importance of early detection and the special needs of children with brain tumours. b.r.a.i.n.child is also a major donor to the BTRC, raising money in the community for research into the causes, treatment, and cure of brain tumours. Gary Kisiloski was instrumental in supporting b.r.a.i.n.child’s objective of finding a cure for paediatric brain tumours by hosting summer festivals and numerous golf tournaments.

Jonathan Hill Memorial Golf Tournament. On July 30, families, friends, and guests assembled at the Cardinal Golf Club in Markham to raise funds for research in brain tumours and leukemia. Over $60,000 has been raised from this tournament over the past two years.

Imagine a Cure. Allan Erlick of Bedford Furniture Industries Inc. held the Imagine a Cure bracelet campaign in honour of his son Evan, raising in excess of $75,000 on behalf of b.r.a.i.n.child.

Maritimes b.r.a.i.n.child in Halifax, Nova Scotia has once again generously provided ongoing support for research projects at the BTRC.

Meagan’s Walk: Creating a Circle of Hope was created to raise hope, awareness and research funding for children with brain tumours. It is an outstanding example of the impact of a dedicated group of individuals. Over the past four years, Meagan’s Walk has raised total funds in excess of $750,000. Meagan’s Walk is a 5 km walk that takes place every year on Mother’s Day. The walk starts at Ontario Place and ends with a human embrace of The Hospital for Sick Children. The hug reaches out with a strong message of hope to the children and the parents within the hospital and beyond. Five-year-old Meagan Bebenek died in June 2001 after a six-month battle with brain stem glioma, a terminal form of brain cancer. Meagan’s story has touched the hearts of thousands across the country and beyond. Denise Bebenek, Meagan’s mother, first envisioned this hug of the hospital in the months following Meagan’s death. With Meagan as a guide and the support of her family and friends, the walk and the hug became a reality. This year, Meagan’s Walk also expanded with new Walks in Guelph and Ottawa.

The fifth annual Toronto Meagan’s Walk, on May 14, involved over 2,000 participants. Special thanks are given again to IKEA North York and IKEA Etobicoke.

Montana/Big Star Annual b.r.a.i.n.child Golf Tournament. On July 14, the 12th Annual b.r.a.i.n.child Golf Tournament was organized by Larry Sdao, his wife Gloria, and Grace DeRose from Montana/Big Star. The tournament featured an 18-hole round of golf, a silent auction and dinner. Over the years, this tournament has raised substantial funds that are being used to support research efforts in the BTRC. A special thanks to Larry, Gloria and Grace for all their efforts on behalf of b.r.a.i.n.child and the BTRC!

Rigatoni for Research Dinner, organized by Kathy Douthart, is one of SickKids top community fundraising events. The efforts of the Douthart family, close friends George and Judy Collaton, the Carlan family, the Wolski family, and the Rigatoni for Research committee have helped give hope to children living with brain tumours and their families. At the 8th annual dinner in 2005, it was announced that since the first Rigatoni for Research Dinner in 1998, more than $1 million has been raised to support ongoing research efforts in the BTRC.

Thank you to everyone for each contribution. Your donations help us achieve our goals!
PUBLICATIONS

2005

Dirks PB: Brain tumor stem cells. Biology of Blood and Marrow Transplantation 11:12-13, 2005


Corson TW, Huang A, Tsao M-S, Gallie BL: KIF14 is a candidate oncogene in the 1q minimal region of genomic gain in multiple cancers. Oncogene 24:4741-4753, 2005


Kamnasaran D, Guha A: Expression of GATA6 in the human and mouse central nervous system Developmental Brain Research 160:90-95, 2005


Roberts TP, Liu F, Kassner A, Mori S, Guha A: Fiber density index correlates with reduced fractional anisotropy in white matter of patients with glioblastoma AJNR. Am J Neuroradiol 26:2183-2186, 2005


2006


Acknowledgement

We would like to acknowledge the generous support of the Research Institutes and Foundations of The Hospital for Sick Children and the University Health Network in the establishment of the Arthur and Sonia Labatt Brain Tumour Research Centre. Special thanks to b.r.a.i.n.child for generously supporting ongoing research projects.

To learn more about the Arthur and Sonia Labatt Brain Tumour Research Centre, log on to our web site at www.sickkids.ca/BTRC

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