May 2011

Children's Cancer & Blood Disorders

$1 Million Donation to the C[17] Council

The Coast to Coast Against Cancer Foundation, a national charity devoted to fighting childhood cancer, awarded the C[17] Council with a $1 Million donation in 2011. Coast to Coast Against Cancer Foundation's success and commitment to C[17] is through the annual "Sears National Kids Cancer Ride." In the last 3 years, SNKCR has raised over $4 million that is dedicated to research initiatives in C[17] and local programming through local foundations in each of the Canadian pediatric oncology/hematology hospitals.

What does $1 Million make possible?

- There are currently over 185 clinical trials open in Canada. These are international academic cooperative group trials that represent the most cutting-edge and current research options for children with cancer across Canada. Research studies done today form the groundwork for the best therapies available tomorrow.
- Research grants have increased from $60,000 per year to $100,000 per year for 2 years. This allows for larger and more ambitious studies to be proposed. Over $2.5 million has been awarded to research grants.
- C[17] started a Developmental Therapeutics Network across Canada in 2010. We are now opening Phase I/II trials using investigational drugs in 8 centres across Canada. Previously limited to the 2 phase 1 centres, this provides access to potential new therapies much closer to home. 80% of Canada's children and adolescents with cancer are now closer to a hospital with phase I/II studies.
- The Developmental Therapeutics Network is also linking pre-clinical translational labs across the country. Our goal is to identify drugs that work in the lab, and then run clinical trials in our Canadian DVL centres.
- Educational grants that support all health professionals address questions or develop projects and materials that will be used in clinics across Canada.
- Partnerships with organizations like CIHR and Genome Canada. Some projects are just too big for any one funder. By joining together, we can address some of the big projects, like the pediatric cancer genomic sequencing of targeted tumours that is linking genomic funders and researchers in a raid discovery model to identify genes that cause childhood cancer.

The C[17] Council and Coast to Coast Against Cancer Foundation have a shared goal of improving outcomes and quality of life of young people impacted by cancer.

This year the C[17] Council will be entering a group of cyclists in the SNKCR in September that will ride 100 to 130 km's/day at a pace of 25-28 kms/hr and will spend time connecting with children and families. If you want to ride for 2-4 days, contact C[17]!

Inside This Issue

C[17] strives to improve health outcomes and quality of life for children and adolescents in Canada with cancer and blood disorders, and to eliminate disparities in care and outcomes wherever they occur.

Our Major Funding Partners

CHILDHOOD CANCER CANADA FOUNDATION

Coast to Coast AGAINST CANCER FOUNDATION

kids with cancer society

SickKids FOUNDATION

Public Health Agency of Canada / Agence de la santé publique du Canada

CANADIAN PARTNERSHIP AGAINST CANCER / PARTENARIAT CANADIEN CONTRE LE CANCER

C17 Researcher Dr. Rod Rassekh

Rod Rassekh and his team received a C17 grant for Genotype-Specific Approaches to Therapy in Children with Cancer (GATC Cancer) study. The cisplatin study was especially fruitful. Cisplatin use is restricted by the high incidence of irreversible ototoxicity associated with it. In children, cisplatin ototoxicity is a serious and pervasive problem, affecting more than 60% of those receiving cisplatin and compromising language and cognitive development. Association analyses were performed for 220 drug-metabolism genes in genetic susceptibility to cisplatin-induced hearing loss in children. Candidate genes were genotyped in an initial cohort of 54 children treated in pediatric oncology units, with replication in a second cohort of 112 children recruited through a national surveillance network for adverse drug reactions in Canada. The project identified genetic variants in TPMT and COMT associated with cisplatin-induced hearing loss in children (Nature Genetics 41, 2009). Individuals at higher risk may also be selected for experimental otoprotectant studies. The identification of genetic variants that contribute to cisplatin ototoxicity is the first step in the development of predictive diagnostic markers to reduce the incidence of cisplatin ototoxicity, thereby improving treatment outcomes.

The findings suggest that it may be possible to identify individuals at higher risk of cisplatin ototoxicity based on genotype, which would improve counseling and treatment options. Alternative treatment options may include lower doses of cisplatin or treatment with carboplatin, which shows a similar cure rate with reduced ototoxicity.

C17 Research Network Grants

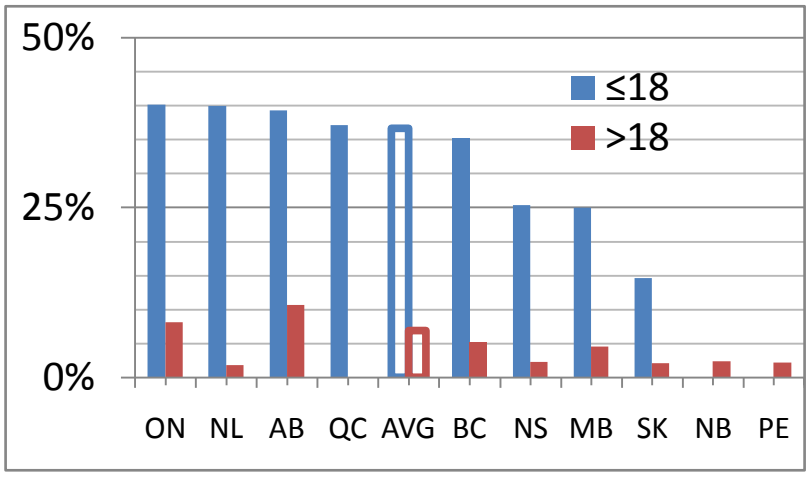
C17 Research Network priorities are to fund collaborative research involving multiple centres across Canada; multi-disciplinary research; and to encourage new collaborations and researchers.

- Research areas include all phases of clinical trials, disease or population-based registries, biological sample banks, quality of life, health outcomes/ psychosocial research, basic and translational research
- Since 2004: 13 LOI/ Grant Competitions, 20 studies funded and $2,378,904.67 committed in research funding
- Funding $100,000.00 per year for 2 years
- Funders include Childhood Cancer Canada Foundation, Coast to Coast Against Cancer Foundation, Kids With Cancer Society (Edmonton), Sandra Sharpe Rhabdomyosarcoma Fund, Aplastic Anemia and Myelodysplasia Association of Canada, and Optimists International

CPAC System Performance Review

Participation by the patient population in clinical trials is a crucial enabler of the development and evolution of best practice treatments. It has been demonstrated that treatment centres engaging in clinical trial participation are also more likely to adhere to best practice guidelines for treating patients.

The calculation of the clinical trial participation ratio was defined as the ratio of the total number of all patients (≤ 18 years/ >18years) enrolled in cancer-related therapeutic trials or clinical research studies to the total number of new cancer cases receiving active treatment. Data for this indicator were collected by the C17 Council for the eight provinces having pediatric cancer centres. Ratios for pediatric clinical trial participation ranged from 15% in Saskatchewan to 40% in Ontario, with a national overall average of 37%. Nine provinces reported on adult clinical trial participation rates, with ratios ranging from 2% in the Atlantic Provinces to 11% in Alberta for an overall national average of 7%.



C17 Developmental Therapeutics Committee

Under the leadership of Co-chairs Sylvain Baruchel and Sandra Dunn, the C17 DVL Committee was created last year to provide greater access across Canada to Phase I/II trials; allowing children and their families an option for investigational treatments while staying closer to home. There are eight C17 centres participating, providing access across Canada for 80% of the children eligible for these studies. The C17 DVL Committee, in partnership with NCIC CTG, opened the first study in September 2010. The study is currently recruiting 3 patients in dose level 3. Pending the results of toxicities in this dose level, the study will either continue with a higher dose level to discover the maximum tolerated does (MTD) or will proceed with the appropriate dose into Phase 2 looking at leukemia.

The BMS Investigator Meeting was held in Montreal in March, with all sites participating in the dasatinib trial attending. Ethics applications are being submitted and the study should open in 7 centres soon.

Other studies are in development, in discussion with pharmaceutical companies or are identified as potential studies for pediatric oncology based on early adult work.

The goal is not to wait until pharmaceutical companies want to start clinical trials, as a result of adult data or business decisions, but to actively identify the drugs that have potential efficacy, and develop the capacity to study them in clinical trials.

C17 DVL Pre-Clinical Studies

The C17 DVL Committee is also in the process of bridging the gap from bench to bedside with the development of a preclinical program, linking researchers across the country to work together to bring evidence from the lab into clinical studies. The first DVL pre-clinical lab grants were handed out in May 2011. Working with a PLK1 inhibitor supplied by Boehringer Ingelheim, 3 translational labs across Canada are investigating the activity level of the drug in several different in-vitro tumour cell lines, including sarcoma, leukemia and glioma. With access to the drug and funding from C17, the goal is to quickly identify candidate drugs, the cancer types that might respond, and develop a Phase I clinical trial that can be conducted in our 8 DVL centres.

- Sandra Dunn, PhD, BC Children's Hospital – Brain Tumours
- Sylvain Baruchel, MD, PhD, Hospital for Sick Children – Sarcomas
- Aru Narendran, MD, PhD, Alberta Children's Hospital - Leukemias

DVL Phase I/II sites

Alberta Children's Hospital
(Calgary)
BC Children's Hospital
(Vancouver)
CancerCare Manitoba
(Winnipeg)
Children's Hospital of Eastern Ontario
(Ottawa)
Hopital Ste. Justine
(Montreal)
Hospital for Sick Children
(Toronto)
IWK (Halifax)
Stollery Children's Hospital
(Edmonton)

DVL studies in progress

NCIC CTG Study IND.203 - A Phase I Study of SB939 in Pediatric Patients with Refractory Solid Tumours and Leukemia

BMS Clinical Protocol CA180226
A Phase II Study of Dasatinib Therapy in Children and Adolescents with Newly Diagnosed Chronic Phase Chronic Myelogenous Leukemia or with Ph+ Leukemias, Resistant or Intolerant to Imatinib

C17 / NCIC CTG LOI: Phase I Study of Imetelstat in children with recurrent/ refractory tumors of neural origin. Investigators: Drs. Victor Lewis, Sylvain Baruchel, Uri Tabori and Alexandra Zorzi.

Studies Under Review

Pfizer A6181196 pediatric GIST protocol

Phase I Dose Finding Study for Melatonin in Pediatric Oncology Patients with Relapsed Solid Tumors. Principal Investigator: Donna Johnston, MD, Children's Hospital of Eastern Ontario.

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C17 CPAC Adolescents and Young Adults

Conference proceedings from the "Workshop on Adolescents and Young Adults with Cancer, Towards Better Outcomes in Canada" held March 11-13, 2010 in Toronto, Ontario have been published in Cancer. The Task Force's goal is to improve outcomes and health-related quality of life for AYA with cancer and AYA survivors of cancer in childhood; and have developed recommendations for their care and strategies for implementation and identifying research priorities for these groups. The AYA Task Force is sponsored by CPAC and C17.

C17 Education Committee

The C17 Education Committee is committed to a 3rd year of educational grants for the Canadian Pediatric Hematology and Oncology community. Grants for educational projects with national applicability will be awarded for 1 year, up to a maximum of $10,000.

The C17 Norma Auger Scholarships support health professionals involved in pediatric Oncology/Hematology/BMT across Canada disseminate and advance their knowledge, skills and experience and to promote presentations and knowledge translation by these health professionals. This is an annual scholarship offered by the C17 Education Committee with funding from the Childhood Cancer Canada and the Coast to Coast Against Cancer Foundation.

Norma Auger recipients are asked to present their presentations or discuss what they have learned on a national videoconference for all C17 centres; a commitment to promote knowledge translation for all our Canadian health professionals.

C17 International Development Committee

The first call for LOI's in pediatric oncology curative therapy programs in the developing world was held in December 2010; 7 were received. In February 2011, 2 of them were selected for development and further fundraising with INCTR Canada.

Dr. Katrin Scheinemann, McMaster University
Implementation of a Pediatric Oncology program in Botswana

Dr. Caron Strahlendorf, BC Children's Hospital
Pediatric Oncology Nursing Curriculum for Developing Countries

CANCER IN YOUNG PEOPLE IN CANADA PROGRAM
PROGRAMME CANCER CHEZ LES JEUNES AU CANADA

CYP-C continues work on a national, population based, cancer surveillance system for children and youth, by establishing a database that can be used by researchers to examine patterns of incidence, health care utilization, treatment and outcomes. The electronic data collection system has been installed at 8 out of 11 centres, and data is being collected on paper forms at the others. The first phase of the project, retrospective data collection for children under the age of 15, who were diagnosed between 2001 and 2008, is underway. Research ethics board applications for prospective data collection are in progress.

Pan-Canadian Oncology Drug Review

Dr. Sunil Desai accepted an offer from the pan-Canadian Oncology Drug Review (pCODR) Steering Committee to be a member of pCODR Expert Review Committee (pERC) representing pediatric oncology. The role of the pERC is to assess the clinical evidence and cost effectiveness of cancer drugs, and to use this information to make recommendations to the provinces and territories to guide their drug funding decisions.