CURRICULUM VITAE

Dr. Sarah Alexander, MD Clinical Director, Division of Haematology/Oncology Assistant Professor in Paediatrics

A. September 5, 2014

B. Biographical Information

Primary Office: The Hospital for Sick Children

Division of Haematology/Oncology

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1. EDUCATION

Degrees

1998-2000 M.M.Sc., Harvard Medical School

Boston, Massachusetts

1990-1994 M.D., Harvard Medical School

Boston, Massachusetts

1986-1990 B.Sc., McGill University

Montreal, Quebec

Postgraduate, Research and Specialty Training

1998 - 2000 Harvard -MIT Division of Health Sciences and Technology

and the Beth Israel Deaconess Medical Centre

Boston, Massachusetts

Subject: The Clinical Investigator Training Program

Sarah W. Alexander

1997 - 2000 Children's Hospital: Dana Faber Cancer Institute: Harvard

Medical School

Boston, Massachusetts

Subject: Paediatric Haematology/Oncology

1994 - 1997 Children's Hospital: Harvard Medical School

Boston, Massachusetts Paediatric Training Program

Qualifications, Certifications and Licensure

Certification

2007- Certification of Registration-Ontario College of Physicians

and Surgeons, practice assessment completed in 2013 allowing for independent license (paediatric haematology

oncology)

2007-2014 American Board of Pediatrics; Hematology/Oncology

Recertification

2000-2007 American Board of Pediatrics; Hematology/Oncology

Certification

2004-2011 American Board of Pediatrics; General Pediatrics

Recertification

1997-2004 American Board of Pediatrics; General Pediatrics

Certification

Licensure

2001-2007 Ohio Medical License

1997-2001 Massachusetts Medical License

2. EMPLOYMENT

Current Appointments

2012- Present Clinical Director, Division of Haematology/Oncology,

Hospital for Sick Children

2007 - Present	Assistant Professor in Paediatrics, University of Toronto, Toronto, Ontario
2007 - Present	Staff Member, The Hospital for Sick Children, Toronto, Ontario

Previous Appointments

HOSPITAL	
2008- 2012	Director, Inpatient Section, Division of Haematology/Oncology, Hospital for Sick Children
2008 - 2013	Director of Fellow's Continuity Clinic, The Hospital for Sick Children, Toronto, Ontario
2004 - 2007	Medical Director, Inpatient Haematology Oncology, Rainbow Babies and Children's Hospital, Cleveland, Ohio
2002 - 2007	Director, Paediatric Haematology Oncology Fellowship Program, Rainbow Babies and Children's Hospital, Cleveland, Ohio
2002 - 2007	Director, Cleveland Hemophilia Treatment Centre, Rainbow Babies and Children's Hospital, Cleveland, Ohio
2001 - 2007	Staff Member, Rainbow Babies and Children's Hospital, Cleveland, Ohio
2000 - 2001	Staff Member, Dana Farber Cancer Institute, Boston, Massachusetts
1999 - 2000	Chief Fellow: Division of Paediatric Haematology and Oncology, Children's Hospital and Dana Farber Cancer Institute, Boston, Massachusetts
UNIVERSITY	
2001 - 2007	Assistant Professor in Paediatrics, Case Western Reserve University, Cleveland, Ohio
2000 - 2001	Instructor in Paediatrics, Harvard Medical School, Boston, Massachusetts

1994 - 2000

Clinical Fellow in Paediatrics, Harvard Medical School, Boston, Massachusetts

3. HONOURS AND CAREER AWARDS

Distinctions and Research Awards

- 1. Full tuition scholarship, University of King's College, Halifax. 1986
- 2. Penhallow Prize, highest merit in biology, McGill University. 1990
- 3. University Scholar, McGill University. 1990
- 4. Paul Dudley White Fellowship, Harvard Medical School. 1991
- 5. Pharmacia Young Investigator Award, International Immunocompromised Host Society. 2000
- 6. Paediatric Pearls Day Award, Rainbow Babies and Children's Hospital. 2002, 2006, 2007
- 7. Heroes of Ireland, Ireland Cancer Centre. 2004
- 8. Resident Teaching Award, Rainbow Babies and Children's Hospital. 2005, 2006, 2007
- 9. Robert Salter Humanitarian Award nominee, Hospital for Sick Children 2010
- 10. Families as Partners in Patient Safety Award, Hospital for Sick Children. June 2011
- 11. Junior Faculty Award for Clinical Excellence, Department of Pediatrics, Hospital for Sick Children, June 2011
- 12. Alvin Zipursky Teaching Award for outstanding contribution to medical education and mentorship. Division of Haematology Oncology, Hospital for Sick Children, June 2012
- 13. Angela Punnett Award, for dedication to the overall wellbeing and professional development of the Haematology Oncology fellows, Division of Haematology Oncology, Hospital for Sick Children, June 2014

4. PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Professional Associations

Memberships

American Society of Pediatric Hematology Oncology Children's Oncology Group

NATIONAL/INTERNATIONAL

- Children's Oncology Group, Non-Hodgkin's Lymphoma Committee, 2007 present
- 2. Children's Oncology Group Institutional Principle Investigator, voting body member, 2013- present

Administrative Activities

INTERNATIONAL

 Invited member: International Scientific Committee for the Fifth International Symposium on Childhood, Adolescent and Young Adult Non Hodgkin Lymphoma 2014

PROVINCIAL/GOVERNMENTAL

- Pediatric Oncology Group of Ontario, Psychosocial Services Committee, 2012present\
- 2. PET Access Advisory Group, Pediatric Oncology Group of Ontario, 2012-2014
- 3. Compliance with Regulatory Requirements Working Group. Pediatric Oncology Group of Ontario, 2014-present
- 4. Pediatric Oncology Group of Ontario Symposium Planning Committee, Non Hodgkin Lymphoma Symposium 2014- present

LOCAL

Hospital Committees:

- 1. Institutional Review Board, Dana Farber Cancer Institute, Boston, Massachusetts, Member; 2000 2001
- 2. Intern Selection Committee, Rainbow Babies and Children's Hospital, Cleveland, Ohio, Member; 2002 2007
- 3. Process Improvement Committee: Paediatric Oncology, Ireland Cancer Centre, Cleveland, Ohio, Member; 2002
- 4. Residency Education Committee, Rainbow Babies and Children's Hospital, Cleveland, Ohio, Member; 2002 2007
- 5. Steering Committee, Ireland Cancer Centre: University Hospital of Cleveland, Cleveland, Ohio, Member; 2002 2007
- 7. Research Ethics Board, The Hospital for Sick Children, Toronto ON, 2010-2012
- 8. Five Year Review Committee, Department of Dentistry, 2012
- 9. Clinical Excellence Committee, Hospital for Sick Children, 2013-present
- 10. Transfusion Advisory Group (including blood shortage core decision group), 2013-present
- 11. Clinical Lab Test Diagnostic Utilization Committee, 2013- present
- 12. Department of Surgery 10 Year Review Committee, 2014

Divisional Committees:

- 1. Residency Program Committee, The Hospital for Sick Children, Toronto, ON, 2007-Present
- 2. 8A/7E Committee, The Hospital for Sick Children, Toronto, ON, 2008- present

- 3. Quality & Utilization & Patient Care Committee, The Hospital for Sick Children, Toronto, ON, 2008-present
- 4. Education Council, Haematology/Oncology/BMT Cluster, The Hospital for Sick Children, Toronto ON, 2008-2012
- 5. Chemotherapy Education Day Committee, The Hospital for Sick Children, Toronto ON, 2008-2012
- 6. Morbidity and Mortality review, Chair, The Hospital for Sick Children, 2009-2014
- 7. Chemotherapy Quality and Safety Committee, Hospital for Sick Children 2011-present
- 8. Haematology/Oncology/BMT Family Advisory Committee, Chair, 2012-present
- 9. Haematology Oncology BMT Clinical trials support unit advisory group, 2013-present
- 10. Garron Family Cancer Center Clinical Advisory Group, 2013- present
- 11. Continuous Improvement Program, leadership group, inpatient hematology/oncology, 2013-present
- 12. Continuous Improvement program, Leadership group, hematology/oncology day hospital, 2013-present

Peer Review Activities

MANUSCRIPT REVIEWS

- 1. Journal of Clincal Oncology
- 2. Pediatric Blood and Cancer
- 3. Pediatrc Drugs
- 4. Pediatric Hematology Oncology
- 5. Journal of Supportive Care in Cancer
- 6. Lancet Oncology
- 7. European Journal of Cancer

Other Research and Professional Activities

EXPERT/ADVISORY PANELS

1. Developing a quality framework and indicators for the pediatric oncology system in Ontario, POGO, Delphi panel participant, 2011

2. International Pediatric Fever and Neutropenia guideline Committee, 2011-2012

OTHER PROFESSIONAL ACTIVITIES

Quality improvement initiatives:

- 1. Family Centered Rounds, 2010
- 2. Inpatient sign-over list, 2010
- 3. Risk Stratification for Patients with Fever and Neutropenia, 2011
- 4. End of Therapy Bone Marrow Aspirates, 2011
- 5. 7E/cujos staffing and day hospital moonlighting, 2011
- 6. Satellite sedation unit improvement, 2011-2013
- 7. Rapid pre-hydration for chemotherapy 2011-2012
- 8. Chemotherapy administration standards 2013
- 9. Anticoagulant therapy and procedures standards, 2013

Ongoing division of haem/onc clinical QI/QA:

- 1. Fever and Neutropenia Guideline Committee, 2008-present
- 2. Fungal prophylaxis Guideline Committee, 2011-present
- 3. Etoposide infusion related reaction task force, 2013- present
- 4. Dexrazoxane guideline committee, 2013- present
- 5. MIBG steering committee, 2013- present

Volunteer activities:

- 1. Camp physician, Camp Oochigeas, a camp for children with cancer, one week annually 2008-2014
- 2. Medical Advisory Board, Camp Oochigeas, 2010-present

C. Academic Profile

1. RESEARCH STATEMENT

My research activities fall into three primary categories, I) studies evaluating strategies to decrease treatment related infectious morbidity and mortality in children with cancer, II) utility, safety and quality of oncology related procedures and, III) improvements in therapy for non Hodgkin lymphoma in children.

I) Infections in children with cancer

The goals of care for the vast majority of children with cancer are to attempt to cure them of their disease while at the same time minimizing both the acute and long term toxicities

of therapy. Infection remains the most common cause of acute treatment related morbidity and mortality. My research includes studies of risk prediction of serious infection in children with the most common cancer therapy related emergency, febrile neutropenia as well as systematic reviews and meta-analysis on the same topic.

Prevention of infection in high risk patients is a relatively unstudied area within pediatric oncology. Currently, I am the study chair for the Children's Oncology Group (COG) randomized, prospective trial evaluating the efficacy and safety of levofloxacin prophylaxis in patients receiving intensive therapy for leukemia and those undergoing stem cell transplant. I was the primary person responsible for the creation of the study concept, protocol design, and since opening of the trial in June 2011, ongoing management. When completed (expected fall 2015) the study, involving 90 centers and 680 patients will be the largest trial of prophylaxis in pediatric oncology. The results are expected to be able to inform practice that to date has been done based on extrapolation of adult practice and institutional clinical traditions.

II) Invasive procedures in pediatric oncology patients

Oncology patients undergo bone marrow aspirates and lumbar punctures as part of their evaluation and care. A child with leukemia on average will undergo 20 lumbar punctures with intrathecal chemotherapy and multiple bone marrow aspirates doing their course of their treatment. The efficiency and quality of these procedures has a substantial impact on their overall care.

My research has investigated the adequacy of training for hematology/oncology residents to become competent in performing procedures and the impact of the qualifications of the provider performing the procedure on the quality of the pathologic sample. In addition investigations have included the impact of "traumatic" (spinal fluid contaminated with >10 red blood cells) on risk of relapse of leukemia, a topic of controversy in the literature. A feasibility trial of training oncologists to use ultrasound guidance for difficult lumbar punctures has been completed. Further investigation of the use of this modality for improving patient care is planned.

A second line of investigation is related to bone marrow aspirates and biopsies. End of treatment bone marrow aspirates have been routinely obtained, initially driven by clinical trial requirements and subsequently by tradition. The utility of end-of-treatment bone marrow aspirates in pediatric acute lymphoblastic leukemia patients was investigated providing clear data that these "routine " studies did not contribute to patient care and therefore could be removed from standard practice, saving substantial anesthesia and laboratory costs, and more importantly sparring children painful procedures. A nearly completed retrospective review is near completion evaluating factors associated with inadequate samples in children undergoing bone marrow biopsies.

III) Therapy for children with Non Hodgkin's Lymphoma

Overall children with non Hodgkin's lymphomas have a favorable outlook, however their remains subgroups of patients within the three major diseases (mature B cell lymphoma,

anaplastic lymphoma and lymphoblastic lymphoma) as well as a number of rare lymphoma subtypes where the prognosis remains poor. Ongoing work to attempt to improve therapy for these groups of patients is critical.

I am an active member of the Children's Oncology Group Non Hodgkin's Lymphoma committee. This committee is responsible for the concept and protocol development, study management and publication of a significant majority of therapeutic clinical trials for children with non Hodgkin's lymphoma in North America. I am the principle author for the recently completed phase III multi-center prospective randomized trial of vinblastine combined with conventional chemotherapy for children with anaplastic large cell lymphoma. I am the study vice chair for the international trial ANHL1131. This study involves sites in 12 countries with European and Children's Oncology group coordinating centers. The study is randomized, prospective trial designed to evaluate the efficacy and safety of rituximab in addition to intensive multi-agent chemotherapy in children and adolescents with high risk B cell NHL or mature B cell leukemia.

In addition I have been involved in several local studies reporting on outcomes and prognostic factors in two rare lymphoproliferative disease, progressive transformation of the germinal matrix and T cell post transplant lymphoproliferative disease.

2. TEACHING PHILOSOPHY

TEACHING STATEMENT

I am a strong proponent for patient centered teaching both at the bedside and for as used for case based learning. Didactics and reading are critical in preparing for and consolidating medical learning. Mentorship of medical trainees in disease content knowledge as well as in skills in communication, organization and advocacy are critical.

My teaching efforts have been acknowledged with several awards including Resident Teaching Award at Rainbow Babies and Children's Hospital, Case western Reserve University in 2005, 2006 and 2007, the Alvin Zipursky Teaching Award for outstanding contribution to medical education and mentorship from Division of Haematology Oncology, Hospital for Sick Children in June 2012 and the Angela Punnett Award, for dedication to the overall well being and professional development of the Haematology Oncology fellows from Division of Haematology Oncology, Hospital for Sick Children, in June 2014.

My primary teaching responsibilities occur during clinical service in my weekly clinic and when I am on the inpatient haematology oncology ward. I support fellows in their acquisition of procedural skills and I mentor fellows in doing specific disease based reviews of the literature for the development and maintenance of divisional standard of care treatment plans and morbidity and mortality rounds.

Between 2009 and 2012 I was responsible for the coordination of the medical student and resident electives as well the observership program in hematology and oncology. I was the Ivan H Smith Memorial Studentship Program Director from 2009-2011, a Cancer Care Ontario program that allows medical students to have an intensive month long clinical oncology experience.

I was the director of the haematology oncology fellow's continuity clinic from 2009-2013. The continuity clinic had existed for a number of years prior to 2009 but based on logistics the number of fellows allowed to follow patients and the number of patients per fellow was limited. The clinic was re-organized in 2010 to expand to engage almost all staff members as supervisors and designed to include all fellows participating in the core haem/onc training program. In a program evaluation completed in 2013 the trainees ranked their continuity clinic time as their most valuable learning experience in fellowship training.

3. CREATIVE PROFESSIONAL ACTIVITIES STATEMENT

1) Pediatric Oncology Quality Improvement and Safety: Development of Professional Practice

In 2008 I became the medical director of the inpatient section within haematology oncology. In 2012 I became the clinical director of the division of haematology oncology. In this role I have a number of responsibilities but the most substantial work has been on multiple sequential quality improvement initiatives primarily focused on the safe and efficient administration of chemotherapy. Working with the Chemotherapy Safety Committee, the Quality, Utilization and Patient Safety Committee as well as various ad hoc groups and with input from clinical teams, hospital administration and the haematology oncology morbidity and mortality rounds, issues have been identified and strategic initiatives to address them undertaken.

- I co-lead a project evaluating the feasibility and safety of "rapid pre-hydration" for chemotherapy, a technique that allows patients to be ready to receive their chemotherapy in a more timely manner. This project was highly successful and has been adopted as a local standard of care. It also was adopted as a "Leading Practice" by Accreditation Canada in 2014 and acknowledged at the Canadian Foundation for Healthcare Improvement awards ceremony.
- I was a member of the International Pediatric Fever and Neutropenia Guideline Committee in 2011-2012, and chaired the section on risk stratification. I then brought these evidence based guidelines to the Hospital for Sick Children, changing our local standard care for low risk patients allowing a portion of them to avoid hospitalization.
- I have lead and been involved in a number of process changes that have had an immediate impact on the safety of chemotherapy. I lead a group that established the Sick Kids Chemotherapy Administration Standards that have

improved efficiency and safety by limiting variation in practice. I lead the group responsible for the creation of institutional guidelines for the documentation of chemotherapy treatment plans as well as the creation of a "library" of standard treatment plans and a system for its maintenance.

The vast majority of children with cancer are treated with chemotherapy with the majority of regimens including multiple medications with significant associated toxicities. Safe and efficient administration of chemotherapy is of critical importance to the quality of care for these children. The work has affected local practice substantially and has had impact as a model for care outside our institution.

2)Pediatric Oncology Care: Professional Innovation and Creative Excellence

I have taken part in a number of advisory panels, guideline and research committees both regionally and internationally. The focus of the work within groups reflects my areas of interest and expertise including non Hodgkin's lymphoma in children and systems and innovations for improvement in care for children with cancer.

- Children's Oncology Group, Non-Hodgkins Lymphoma Committee, 2007 present.
- Pediatric Oncology Group of Ontario Symposium Planning Committee, Non Hodgkin Lymphoma Symposium 2014
- Invited member: International Scientific Committee for the Fifth International Symposium on Childhood, Adolescent and Young Adult Non Hodgkin Lymphoma.
- Pediatric Oncology Group of Ontario, Psychosocial Services Committee, 2012- present
- Developing a quality framework and indicators for the pediatric oncology system in Ontario, POGO, Delphi panel participant, 2011
- Positron Emission Tomography (PET) Access Advisory Group, Pediatric Oncology Group of Ontario, 2012-2014
- Children's Oncology Group Institutional Principle Investigator, 2013- present
- Compliance with Regulatory Requirements Working Group. Pediatric Oncology Group of Ontario, 2014-present

3) Expert in the care of children with cancer: Exemplary Professional Practice

A significant portion of my time is spent in direct patient care, primarily of patients with leukemia and lymphoma and those receiving intensive therapy on the inpatient wards. Direct patient care is in itself extremely important and rewarding to me but also provides a critical opportunity for teaching as well as an inspiration for clinical research and quality improvement initiatives.

• I received the Junior Faculty Award for Clinical Excellence in Pediatric Medical Care in 2011 from the Department of Pediatrics, Hospital for Sick Children.

- I was nominated for the Robert Salter Humanitarian Award in 2010.
- In collaboration with the quality leader in haem/onc, I initiated planning for the haematology/oncology family advisory council (FAC) in 2011 with the goal of providing a sustainable, organized structure to gather parent input on clinical programs within the division. The FAC has met bi-monthly since 2012. I chair the group with a parent co-chair. The council has provided substantive feedback to multiple areas of the clinical program. After indentifying needs via a formal quality improvement survey, the FAC has created a "By families, for families" booklet of essential information for parents of newly diagnosed oncology patients.
- I receive many formal and informal requests for consultation for opinions on the care of pediatric patients with complex or rare lymphomas.

D. Research Funding

Grants, Contracts and Clinical Trails		
1998 – 2000	Principal Investigator . Clinical Investigator Training Program Award: Risk Prediction for Paediatric Oncology patients with febrile neutropenia. Harvard-MIT division of Health Sciences and the Beth Israel Deaconess Hospital \$80,000	
2002 – 2007	Site Principal Investigator . Comprehensive Core Grant for Haemophilia. Maternal and Child Health Bureau -\$100,000	
2002 – 2007	Site Principal Investigator . Enhance nursing and social work for patients with haemophilia. Cascade Grant, administered through the Haemophilia Foundation of Michigan- \$165,000	
2002 – 2007	Site Principal Investigator . Universal data and Serum Specimen Collection System for Haemophilia. Centers for Disease Control - \$50,000	
2010-2011	Principal Investigator . Improving the Quality of Palliative Care Delivery for Children with Advanced Cancer: POGO- \$11,481.00	
2010-2014	Co-investigator . Surveillance of resistance in colonizing bacteria in children enrolled in ACCL 0934: NIH: Biomarker, Imaging and QoL Funding Program (Grant PI: Brian Fisher, CHOP) - \$900,000	
2011-2015	Principal Investigator . ACCL0934: A randomized trial of levofloxacin to prevent bacteremia in children being treated for acute leukemia or undergoing hematopoietic stem cell transplantation. (COG study chair)- \$26,528 annually	
2012	Principal Investigator . SickKids Paediatric Patient Safety and Quality Funding, "Can rapidly hydrating children prior to	

chemotherapy decrease the mean interval time from arrival from clinic until chemotherapy administration, therefore resulting in chemotherapy being delivered in a safer and more efficient manner"- \$1500 2012 Co-investigator. A Feasibility Pilot Study of Ultrasound -Guidance for Difficult Lumbar Punctures in Children with Cancer. Garron Cancer Center Small Grants Competition- \$42,922 2013 **Principal Investigator**. Children's Oncology Group Site Principle Investigator, award per year variable (by per case re-imbursement and specific studies open, but is >\$250,000 2013-2014 Co-investigator. Initiative to Maximize Progress in Adolescent Cancer Therapy (IMPACT). C17 Research Network. - \$179,676 2013-2014 **Site Principle Investigator**. To conduct COG research protocols at the Hospital for Sick Children. St Baldricks Foundation Supplemental Reimbursement - \$158,578 2014 **Co-investigator**. Improving quality of life in children with cancer through psychosocial screening and improved communication with health care providers. Canadian Cancer Society Innovation Fund-\$198,000

E. PUBLICATIONS

1. MOST SIGNIFICANT PUBLICATIONS

 Alexander S.W., Wade K.C., Hibberd P., and Parsons S.K: Evaluation of risk prediction criteria for episodes of febrile neutropenia in paediatric cancer patients. Journal of Paediatric Haematology Oncology 2002: 24(1): pp 38-42.
 PA

This is a retrospective analysis of factors associated with bacteremia, other document infection and serous medical complications in pediatric patients with febrile neutropenia. This paper has been included in several systematic reviews and meta-analyses of the topic. The strategy described in this paper has been adopted in clinical programs in North America and Europe.

2. **Alexander S**, Nieder M, Zerr D, Fisher B, Dvorak C, Sung L. Prevention of bacterial infection in pediatric oncology: what we know, what can we learn? Pediat Blood Cancer, 2012 Jul 15; 59(1): 16-20 **PA**

This is a literature review of the current state of knowledge of the use of bacterial prophylaxis for children being treated for cancer. The contents of this review

were presented at the ASPHO meeting as part of educational symposium in 2012. The review provided the basis for the devolvement and acceptance of the Children s Oncology Group trial of bacterial prophylaxis in patients at high risk of serious bacterial infections including those receiving intensive therapy for leukemia and those undergoing stem cell transplantation.

3. Lehrnbecher T, Philips, **Alexander S**, Alvaro F, Carlesse F, Fisher B, Hakim H, Santolaya M, Castagnola E, Davis BL, Dupuis LL, Gibson F, Groll AH, Gaur A, Gupta A, Kebudi R, Petrilli S, Steinbach WJ, Villarroel M, Zaoutis T, Sung L. Guideline for the management of fever and neutropenia in children with cancer and/or undergoing hematopoietic stem cell transplantation. J Clin Oncol. 2012 10; 30(35): 4427-38. **C**

This manuscript reports on the work done by the International Pediatric Fever and Neutropenia Guideline Panel, a selected group of experts in the investigation and care of children with cancer who fever and neutropenia. I chaired the subgroup on risk stratification, The guideline provides the first evidence based approach specific to children for fever and neutropenia, the most common life threatening emergency in patients receiving intensive therapy for cancer.

4. Al Mahmoud R, Weitzman S, Ngan B, Abdelhaleem, M, **Alexander S**. Peripheral T-cell lymphoma in children and adults: a single institution experience. J Pediatr Hematol Oncol 2012 Nov 34(8):611-6 **SRA**

This is a retrospective review of the experience with patients with peripheral T cell lymphoma at the Hospital for Sick Children. Unlike the relatively favorable outcome for children treated with the more common types of non Hodgkin's lymphoma, children with PTCL have a much less good prognosis. Due the relative rarity and the lack of a clear no standard regimen for this disease. This publication, in addition to recent publications from groups in Europe, the Children's Oncology Group and a group in Japan have together laid the groundwork for a prospective international trial.

5. Alexander S, Kraveka J, Weitzman S, Lowe E, Smith L, Lynch J, Chang M, Kinney M, Perkins S, Laver J, Gross T, Weinstein T. Advanced Stage Anaplastic Large Cell Lymphoma in Children and Adolescents: Results of ANHL0131, a Randomized Phase III Trial of APO Versus a Modified Regimen with Vinblastine: A Report from the Children's Oncology Group. Accepted in Pediatric Blood and Cancer. **PA**

This manuscript reports on the prospective randomized large multicenter study evaluating the utility of the addition of vinblastine to post induction multi-agent chemotherapy. Despite the fact that the randomized intervention was not superior to the standard arm, the overall outcomes are very similar to those reported form the contemporary European pediatric trial using more intensive but shorter in duration therapy..

2. PEER- REVIEWED PUBLICATIONS

Journal Articles

- 1. Tran T, Lee M, **Alexander S**, Gibson P, Bartels U, Johnston D, Portwine C, L Sung. Lack of Treatment-Related Mortality Definitions in Clinical Trials of Children, Adolescents and Young Adults with Lymphomas, Solid Tumors and Brain Tumors: a Systematic Review. Accepted in BMC cancer. **Collaborator**
- 2. **Alexander, S.** Clinically Defining and Managing High Risk Pediatric Patients with Acute Lymphoblastic Leukemia. American Society of Hematology Education Book 2014. Invited submission, Accepted. **Principal Author**
- 3. **Alexander S**, Kraveka J, Weitzman S, Lowe E, Smith L, Lynch J, Chang M, Kinney M, Perkins S, Laver J, Gross T, Weinstein T. Advanced Stage Anaplastic Large Cell Lymphoma in Children and Adolescents: Results of ANHL0131, a Randomized Phase III Trial of APO Versus a Modified Regimen with Vinblastine: A Report from the Children's Oncology Group. Accepted in *Pediatric Blood and Cancer*. **Principal Author**
- 4. Shaikh F, Voicu L, Tole S, To T, Doria A, Sung L, **Alexander S**. The risk of traumatic lumbar punctures in children with acute lymphoblastic leukemia. *European Journal of Cancer*.2014: 50 (8): 1482-1489. **Senior Responsible Author.**
- 5. Kassam A, Skiadaresis J, **Alexander S**, Wolfe J. Parent and clinician preferences for location of end-of-life care: Home, hospital or freestanding hospice? *Pediatr Blood Cancer* 2014: 61(5): 859-864. **Collaborator.**
- 6. Rodrigues A, Wong C, Mattiussi A, **Alexander S**, Lau E, Dupuis LL. Methylnaltrexone for opioid induced constipation in pediatric oncology patients. *Pediatr Blood Cancer*. 2013 Oct;60(10):1667-70 **Collaborator.**
- 7. Kirwan C, Ngan BY, Halliday W, **Alexander S**, Ali A. Primary conjunctival anaplastic large cell lymphoma in a child. *J AAPOS*. 2013 Aug;17(4):437-9 **Collaborator.**
- 8. Kassam A, Skiadaresis J, Habib S, **Alexander S**, Wolfe J. Moving toward quality palliative care: parent and clinician perspectives on gaps between what matters and what is accessible. *J Clin Oncol* 2013 31(7): 910-5 **Collaborator.**

- 9. Ultrasound imaging for lumbar punctures and epidural catheterizations: systematic review and meta-analysis. Shaikh F, Brzezinski, **Alexander S**, Arzola C, Carvalho JC, Beyene J, Sung L *BMJ*. Mar26, 346:f1720 epub **Collaborator.**
- 10. Pole JD, Alibhai Sm, Ethier MC, Teuffel O, Portwine C, Zelcer S, Johnston DL, Silva MA, **Alexander S**, Brandwein JM Sung L. Adolescents with acute lymphoblastic leukemia treated at pediatric versus adult hospitals. *Ann Oncol* 2013: 24(3): 801-6 **Collaborator.**
- 11. Shaikh F, Ngan BY, **Alexander S**, Grant R. Progressive transformation of germinal centers in children and adolescents: An intriguing cause of lymphadenopathy. *Pediatr Blood Cancer*, 2013 Jan 60(1):26-30. **Collaborator.**
- 12. Gupta S, Crump H, **Alexander S**. The utility of end-of-treatment bone marrow aspirates in pediatric acute lymphoblastic leukemia: A quality improvement project. *Pediatr Blood Cancer*, 2012 May 22 : 59(7): 1305-1306. **Senior Responsible Author.**
- 13. Lehrnbecher T, Philips, **Alexander S**, Alvaro F, Carlesse F, Fisher B, Hakim H, Santolaya M, Castagnola E, Davis BL, Dupuis LL, Gibson F, Groll AH, Gaur A, Gupta A, Kebudi R, Petrilli S, Steinbach WJ, Villarroel M, Zaoutis T, Sung L. Guideline for the management of fever and neutropenia in children with cancer and/or undergoing hematopoietic stem cell transplantation. *J Clin Oncol*. 2012 10; 30(35): 4427-38. **Collaborator**.
- 14. Sung L, Manji A, Beyene J, Dupuis L, **Alexander S**, Phillips R, Lehrnbecher T. Fluoroquinolones in children with fever and neutropenia- a systematic review of prospective trials. *Pediatr Infect Dis J*, 2012 May; 31(5): 431-5 **Collaborator.**
- 15. Al Mahmoud R, Weitzman S, Ngan B, Abdelhaleem, M, **Alexander S**. Peripheral T-cell lymphoma in children and adults: a single institution experience. *J Pediatr Hematol Oncol* 2012 Nov 34(8):611-6. **Senior Responsible Author.**
- 16. Ethier MC, **Alexander S**, Abla O, Green G, Lam R, Sung L. Association between obesity and diagnosis and weight change during induction and survival in pediatric acute lymphoblastic leukemia. *Leuk Lymphoma*, 2012 Sep; 5399: 1677-81 **Collaborator.**
- 17. Fisher B, **Alexander S**, Dvorak C, Zaoutis T, Zerr D, Sung L. Epidemiology and potential prevention measures for viral infections in children with malignancy and those undergoing hematopoietic cell transplantation. *Pediat Blood Cancer*, 2012 Jul 15; 59(1): 11-5 **Collaborator.**
- 18. **Alexander S**, Nieder M, Zerr D, Fisher B, Dvorak C, Sung L. Prevention of bacterial infection in pediatric oncology: what we know, what can we learn? *Pediat Blood Cancer*, 2012 Jul 15; 59(1): 16-20. **Principal Author.**

- 19. Dvorak C, Fisher B, Sung L, Steinbach W, Nieder M, **Alexander S**, Zaoutis T. Antifungal prophylaxis in pediatric hematology/oncology: new choices and new data. *Pediat Blood Cancer*, 2012 Jul 15; 59(1): 21-6 **Collaborator.**
- 20. Blanco E, Beyene J, Maloney AM, Almeida R, Ethier MC, Winick N, **Alexander S**, Sung L. Non-relapse mortality in pediatric acute lymphoblastic leukemia: a systematic review and meta-analysis. *Leuk Lymphoma*, 2012 May; 53(5): 878-85 **Collaborator.**
- 21. Li S, Traubici J, Ethier MC, Gillmeister B, **Alexander S**, Gassas A, Sung L. Pneumotosis intestinalis in children with acute lymphoblastic leukemia and acute myeloid leukemia. *Supportive Care Cancer*, 2011 Jan 15; 20(2): 343-347. **Collaborator.**
- 22. Diorio C, Tomlinson D, Boydell KM, Regier DA, Ethier MC, Alli A, **Alexander S**, Gassas A, Taylor J, Kellow C, Mills D, Sung L. Attitudes toward infection prophylaxis in pediatric oncology: a qualitative approach *PLoS One*. 2012;7(10):e47815 **Collaborator.**
- 23. Regier DA, Diorio C, Ethier MC, Alli A, **Alexander S**, Boydell KM, Gassas A, taylor J, Kellow C, Mills D, Sung L. Discrete choice experiment to evaluate factors that influence preferences for antibiotic prophylaxis in pediatric oncology. *PLoS One* 2012; 7(10): e47470 **Collaborator.**
- 24. Phillips R, Lehrnbecher T, **Alexander S**, Sung L. Updated systemic review and meta-analysis of the performance of risk prediction rules in children and young people with febrile neutropenia. *PLoS One*, 2012; 7(5): e38300 **Collaborator.**
- 25. McCrone L, **Alexander, S**, Karsli C, Taylor G, Amaral JG, Parra D, temple M, John P, Connolly BL US-guided percutaneous needle biopsy of anterior mediastinal masses in children. *Pediatr Radiol*, 2012 Jan; 42(1): 40-9 **Collaborator.**
- 26. Schechter-Finkelstein T, Gassas A, Weitzman S, Grant D, Pollock-Barzly S, Dipchand A, **Alexander S**, Ali M, Avitzur Y, Doyle J. Hematopoietic stem cell transplantation following organ transplantation in children. *Bone Marrow Transplant*, 2011 Oct;46 (10): 1321-5 **Collaborator.**
- 27. Sung L, Yanofsky R, Klaasen RJ, Dix D, Pritchard S, Winick N, **Alexander S**, Klassen A. Quality of life during active treatment for pediatric acute lymphoblastic leukemia. *Int J Cancer* 2010, May 4. **Collaborator.**
- 28. Lusher J, Pipe S, **Alexander S**, Nugent D. Prophylactic therapy with Fibrogammin P is associated with a decreased incidence of bleeding episodes: a retrospective study. *Haemophilia*. 2010: 16(2): 316-321 **Collaborator.**

- 29. Li X. and **Alexander S.W**: Herediatry Persistance of Alpha-Fetoprotein. *Pediatric Blood and Cancer*, 2009: 52 (3): 403-5. **Senior Responsible Author.**
- 30. **Alexander S.W.**, Hopewell S., Hunter S., and Chouksey A: Rituximab and desensitization for a patient with severe factor IX deficiency, inhibitors and history of anaphylaxis. Journal of Paediatric Haematology Oncology 2008: 30 (1): pp 93-95. **Principal Author.**
- 31. Shah M.D., O'Riordan M.A., and **Alexander S.W**: Evaluation of Prolonged aPTT Values in the Paediatric Population. *Clinical Paediatrics* 2006: 45 (4): pp 347-353. **Senior Responsible Author.**
- 32. Palmert M.R., **Alexander S.W.**, and Goorin A.M: Ovarin toxicity after chemotherapy: Possible association with ifosfamide administration. *Pediatric Blood and Cancer* 2004: 42 (3): pp 219-219. **Collaborator.**
- 33. Fleming M.D., **Alexander S.W.**, Fournier M.V., Sallan S.E., Nichols K., Carpintieri D., and Rollins B.J: Coincident expression of the chemokine receptors CCR6 and CCR7 by pathologic Langerhans cells in Langerhans cell histiocytosis. *Blood* 2003: 101(7): pp 2473-2475. **Collaborator.**
- 34. Feldmann J., LeDiest F., Ouachee-Chardin M., Certain S., **Alexander S.W.**, Quartier P., Haddad E., Wulffraat N., Casanova J.L., Blanche S., Fischer A., and de Saint Basile G: Functional consequences of perforin gene mutation in 22 patients with familial haemophagocytic lymphohistiocytosis. *British Journal of Haematology* 2002: 117(4): pp 965-972. **Collaborator.**
- 35. **Alexander S.W.**, Wade K.C., Hibberd P., and Parsons S.K: Evaluation of risk prediction criteria for episodes of febrile neutropenia in paediatric cancer patients. Journal of Paediatric Haematology Oncology 2002: 24(1): pp 38-42. **Principal Author**
- 36. Parsons S.K., Mayer D.K., **Alexander S.**W., Xu R., Land V., and Laver J: Growth factor practice patterns among paediatric oncologists: Results of a 1998 Paediatric Oncology Group Survey. Economic Evaluation Working Group the Paediatric Oncology Group. *Journal of Paediatric Haematology Oncology* 2000: 22(3): pp 227-241. **Collaborator.**
- 37. Tetzlaff W., **Alexander S.**W., Miller F.D. and Bisby M.A: Response of facial and rubrospinal neurons to axotomy: Changes in mRNA expression for cytoskeletal proteins and GAP-43. *Journal of Neurosciences* 1991: 11(8): pp 2528-2544. **Collaborator.**

Abstracts

- 1. Magee K, Bates J, Nanji M, Gandhi B, McLean J, Clarke A, Swystun Z, **Alexander S**. Bringing chemotherapy administration in to the daytime to improve efficiency and patient safety: a quality improvement initiative. Accepted for SIOP October 2014. **Senior Responsible Author**
- 2. Flank J, Thackray J, Nielsen D, August A, Schechter-Finkelstein T, **Alexander S**, Sung L, Dupuis L. Olanzapine for treatment and prevention of acute chemotherapy-induced vomiting (civ) in children: a retrospective, multi-center review, *MASCC* June 2104 **Collaborator.**
- 3. Shaikh F, **Alexander S**, Dupuis L, Nathan P. Cardiotoxicity and second malignancies associated with dexrazoxane in children and adolescents: a systematic review of randomized trials and non-randomized studies. *ASCO*, June 2014 **Collaborator.**
- 4. Zupanec, S, Kinoshita H, Jansen L, **Alexander S**. Examining the referral patterns and outcomes of neuropsychological evaluation in children with acute lymphoblastic leukemia. *Pediatric Oncology Group of Ontario*, poster presentation, Nov 22, 2013 **Senior Responsible Author.**
- 5. Rayar M, Atkinson A, Shaikh F, Taylor T, Ross S, **Alexander S**. Etoposide infusion related reaction in pediatric haematology oncology patients . *Pediatric Oncology Group of Ontario*, poster presentation, Nov 22, 2013 **Senior Responsible Author.**
- DiLabio J, Doyle J, Alexander S, Gupta S, Punnett A. Impact of ethnicity on the donor search for pediatric patients considered for stem cell transplanatation. *Pediatric Oncology Group of Ontario*, poster presentation. Nov 22, 2013 Collaborator.
- 7. Leucht S, Lo, R, Zhao XY, Thomas K, Punnett A, **Alexander S**. Utility of radiographic investigations of children undergoing intensive myelosuupersive therapy who have prolonged fever and neutropenia. *ASPHO* meeting, April 24, 2013 **Senior Responsible Author.**
- 8. Magee K, Watson J, **Alexander S**, Tracey Taylor. Rapid Hydration: Small changes with big gains. *SIOP*, *Pediatr Blood Cancer*. 2012 59(6) PR018. **Co-Author**
- 9. Kassam A, Habib S, Skiadaresis J, **Alexander S**, Wolfe J. Paucity of core palliative care elements available to children with cancer at end-of-life:

- Perspectives of bereaved parents and clinicians. *ASCO*, *J Clin Oncol* 30, 2012 (suppl; abstr 9076) **Co-Author or Collaborator.**
- 10. Gupta S, Crump H, **Alexander S**. The utility of end-of-treatment bone marrow aspirates in pediatric acute lymphoblastic leukemia: A quality control project. *SIOP*, *Pediatr Blood Cancer*. 2011;57:760. PA002. **Senior Responsible Author.**
- 11. Shaikh F, **Alexander S**, Tole S, Voicu L, Sung L Image-Guided Therapy May Reduce the Risk of Traumatic or Failed Lumbar Punctures in Children with Acute Lymphoblastic Leukemia. *ASH Annual Meeting* December 2011 118: Abstract 3582 **Co-Author or Collaborator.**
- 12. Kassam A, **Alexander S**, Wolfe, J. Elements of Palliative Care Considered Important to Pediatric Oncology Clinicians. *Pediatric Oncology Group of Ontario*, Nov 2011 **Collaborator.**
- 13. Al Mamoud R, Weitzman S, Ngan B, Abdelhallem M, **Alexander S**. Peripheral T-cell lymphoma in children and adolescents: A single institution experience. Presented at *Tcell Lymphoma Forum*, Jan 27-29, 2011, San Francisco. (and at ASPHO) **Senior Responsible Author.**
- 14. Chang A, Maloney AM, Clarke A, Bates J, Nanji M, **Alexander S**. Family Centered Rounds: A Quality Improvement Project Enhancing Communication between Patient/Families and the Interprofessional Team on a Paediatric Inpatient Haem/Onc Unit. *APHON*, 2010 **Senior Responsible Author.**
- 15. Airhart A, Doyle J, Airhart C, Abla A, **Alexander S**. Assessment of paediatric haematology/oncology fellows' training in the performance of lumbar punctures. *Pediatric Blood and Cancer*, 2009 **Senior Responsible Author.**
- 16. Shaikh F, Ngan BY, **Alexander S**, Grant R: Progressive transformation of the germinal centers in children: an intriguing picture. *Pediatric Blood and Cancer*, 2009 **Collaborator.**
- 17. Chouksey A., **Alexander S.W.**, Arnold J: Specific antibody deficiency in a patient with factor IX deficiency. *AAAAI*, 2007. **Collaborator.**
- 18. Abouhassan S.R., **Alexander S.W.**, Chouksey A: High dose methotrexate readministration without pre-medication phase. *AAAAI*, 2007. **Collaborator.**
- 19. Lusher J., Pipe S., **Alexander S.W.**, Nugent D: Prophylactic therapy with Fibrogammin P is associated with a decreased incidence of bleeding episodes: a retrospective study. *American Society of Haematology*, 2006. **Collaborator.**
- 20. **Alexander S.W.**, Hopewell S., Chouksey A., Hunter S: Rituximab and Desensitization for a Patient with Severe Factor IX Deficiency, Inhibitors &

- History of Anaphylaxis. *National Hemophilia Foundation Meeting*, 2006. **Principal Author**
- 21. Shah M.D., O'Riordan, M.A., **Alexander S.W**: Evaluation of Prolonged aPTT in the Paediatric Population. *Paediatric Academic Society/ American Society of Paediatric Haematology/Oncology*, 2005. **Senior Responsible Author.**
- 22. **Alexander S.W.**, Wade K.C., Levine K.J., Hibberd P., Parsons S.K: A retrospective evaluation of risk stratification in paediatric oncology patients with febrile neutropenia. *11th International Symposium of Infections in the Immunocompromised* Host, Halifax, Nova Scotia. 2000. **Principal Author**
- 23. Tetzlaff W., **Alexander S.W.**, and Bisby M.A: The initial cell body response of axotomized rubrospinal neurons is similar to that of facial motor neurons, but is not sustained. *Canadian Journal of Physiology and Pharmacology* 1989: 67. **Collaborator.**

Books Chapters

- 1. **Alexander S,** Ferrando A Lymphomas. In: Orkin, Nathan, Ginsburg, Look, Fisher Lux (eds), Nathan and Oski's Hematology and Oncology of Infancy and Childhood, eighth edition. Accepted for publication **Principal Author**
- 2. Brian T. Fisher, DO, MSCE, MPH, Christopher C. Dvorak, MD, and **Sarah Alexander**, MD: Prevention of Infections. In: Feusner, Hastings (eds) <u>Supportive</u>
 <u>Care in Pediatric Oncology Series: Pediatric Oncology</u>, Accepted for publication **Senior Responsible Author.**
- McLean T.W., and Alexander S.W: Prevention, Diagnosis and Treatment of Infectious Complications. In: <u>Cancer in Children: The Clinical Biology of</u> <u>Childhood Cancer</u> (W. Carroll and J Finlay, eds). Jones and Bartlett, 2009 Co-<u>Principal Author</u>.
- 4. Strunk C.J., and **Alexander S.W**: Solid Tumors of Childhood. <u>Oncology: An Evidence Based Approach</u> (Chang, Ganz, Hayes, Kinsella, Pass, Schiller, Stone, and Strecher, eds). Springer, 2006. **Co-Principal Author**.
- Alexander S.W., Walsh T., Freifeld A., and Pizzo P.A: Infectious Complications in Paediatric Cancer Patients. <u>Principles and Practice of Paediatric Oncology</u> (Pizzo P.A., and Poplack D.G., eds). Lippincott, Williams and Wilkins, 2002. <u>Principal Author</u>
- 6. **Alexander S.W.**, Mueller B.U., and Pizzo P.A: Infectious complications in children with cancer and children with Human Immunodeficiency Virus infection. Clinical Approach to Infection in the Compromised Host, 4th Edition (Rubin R.

- and Yound L.S., ed). Plenum Publishing Corp., New York 2002. **Principal Author**
- 7. **Alexander S.W.** and Pizzo P.A: Special Considerations in Children with Fever and Neutropenia. <u>Febrile Neutropenia</u> (Rolston K.V.I. and Rubenstein E.B., ed). Martin Dunitz Ltd., London 2002. **Principal Author.**
- 8. **Alexander S.W**: Nonmicrobiologic Diagnostic Procedures. In: Management of Infections in Immunocompromised Patients (Glauser M.P. and Pizzo P.A., ed). WB Saunders Co. Ltd., London 2000: pp 24-31. **Principal Author.**
- 9. **Alexander S.W**. and Pizzo P.A: Current considerations in the management of febrile neutropenia. In: <u>Current Clinical Topics in Infectious Diseases</u> (Remington J.S. and Swartz M.N., ed). Blackwell Science, Inc., Malden, MA 1999: pp 160-180. **Principal Author.**

G. PRESENTATIONS AND SPECIAL LECTURES 1. INTERNATIONAL

Invited Lectures and Presentations

- 2014 **Invited Talk**.ACCL0934: Randomized Trial of Levofloxacin to Prevent Bacterial Infection: study update, Children's Oncology Group, St Louis, Missouri. 2014
- 2013 Oct Invited Talk. Antibiotic prophylaxis for children with AML, Children's Oncology Group, Dallas, Texas, October 10, 2013
- 2012 Sept Invited Talk. Infections in children being treated for relapsed ALL: What do we know and what can we learn? Children's Oncology Group, Atlanta, Georgia, Sept 14, 2012
- 2012 Sept Invited Talk. High Risk B NHL: COG study ANHL1131. Educational session for clinical research associates, Children's Oncology Group. Atlanta, Georgia. Sept 13th 2012
- 2012 May Invited Talk. Bacterial infections in children with cancer: risk factors, empiric therapy and a possible role for prophylaxis" Pediatric Oncology Group of Ontario satellite education day. Toronto, Ontario. May 28, 2012
- 2012 Mar

 Invited Talk. ANHL1131: Intergroup Trial for Children or Adolescents with B-cell Non-Hodgkin Lymphoma NHL or Mature B-cell Leukemia B-AL: Evaluation of Rituximab Efficacy and Safety in High Risk Patient: protocol overview. Children's Oncology Group, Minneapolis, Minnesota, March 29, 2012

2011 Sept	Invited Talk . Intergroup trial for children or adolescents with B cell NHL or B-AL: evaluation of rituximab efficacy and safety in high risk patients; study proposal" COG meeting, Atlanta Georgia, September 17, 2011
2011 Sept	Invited Talk . Bacterial infections in high risk oncology patients" Community Clinical Oncology Program (CCOP) meeting at COG meeting, Atlanta Georgia, September 16, 2011
2011 Apr	Invited Talk . Workshop speaker: Antibacterial prophylaxis: for whom, when why and how might it be useful?" American Society for Pediatric Hematology and Oncology annual meeting, Baltimore April 15, 2011
2011 Apr	Invited Talk . Workshop moderator: "Antimicrobial prophylaxis", American Society for Pediatric Hematology and Oncology annual meeting, Baltimore April 15, 2011
2. LOCAL	
Invited Lectures and Presentations	
2014 Jan	Invited Talk . Chronic Myelogenous Leukemia, Haematology Rounds, Hospital for Sick Children, Jan 14, 2014

2014 Jan	Invited Talk . Chronic Myelogenous Leukemia, Haematology Rounds, Hospital for Sick Children, Jan 14, 2014
2013 Apr	Invited Talk . Pediatric Lymphoma, Princess Margaret Hospital. Toronto, April 17, 2013
2012 May	Invited Talk . "Lymphadenopathy: when to worry and what to do". Paediatric Update 2012: Toronto, Ontario May 11, 2012
2012 Jan	Invited Talk . "Infections in High Risk Pediatric Oncology Patients" Infectious Disease Clinical and Research Forum, Hospital for Sick Children, January 25, 2012
2011 Mar	Invited Talk . Haematology Oncology Division Rounds: "Proposal for outpatient management of patients with low risk fever and neutropenia" Lillian Sung, Lee Dupuis and Sue Zupanec, March 3, 2011. Hospital for Sick Children, Toronto, Canada
2011 July	Invited Talk . "Assent, Consent and Capacity", panel member, Chemotherapy Update, Hospital for Sick Children, July 11, 2011
2011 June	Invited Talk. Hospital for Sick Children Pediatric Grand Rounds case presentation: CML, June 15, 2011

2011 Nov	Invited Talk Haematology Oncology Division Rounds: "Chemotherapy prescribing errors" November 10, 2011. Hospital for Sick Children, Toronto, Canada
2010 June	Invited Talk . Bioethics Grand Rounds, "Please don't tell my child she is dying" with Christine Harrison and Michelle Greenwood, June 17, 2010
2010 May	Invited Talk . IBD symposium, "Lymphoma in children with inflammatory bowel disease", May 28, 2010. Toronto, Canada
2009 May	Invited Talk Haematology Oncology Division Rounds: "Monotherapy for Febrile Neutropenia" May 7, 2009. Hospital for Sick Children, Toronto, Canada
2008 Nov	Invited Talk Haematology Oncology Division Rounds: "Children on therapy for cancer: should they, could they, would they go to school?" November 6, 2008. Hospital for Sick Children, Toronto, Canada
2008 Jul	Invited Talk. "6 Mercaptopurine in ALL: The Highs and the Lows", Chemotherapy Update Day. Hospital for Sick Children, July 2008

E. Research Supervision/ Career Mentorship

MASTER'S STUDENTS

2012-13 Masters Committee, non-voting member, Furqan Shaikh, thesis entitled Predicting the Risk of Traumatic Lumbar Punctures in Children with Acute Lymphoblastic Leukemia: A Retrospective Cohort Study using Repeated-Measures Analyses

POSTGRADUATE MD

2012-2014	Meera Rayar (Clinical Fellow, Haematology/Oncology, Hospital for Sick Children). Project title: Etoposide infusion related reactions in pediatric haematology oncology patients. (presented at POGO 2013, SIOP 2014)
2012-2013	Alicia Kassam (Clinical Fellow, Haematology/Oncology, Hospital for Sick Children), Project titled: Paucity of core palliative care elements available to children to children with cancer at end of life: perspective of bereaved parents and clinicians. (presented at ASCO 2012), Funding: Pediatric Group of Ontario

Stephan Leutch (Clinical Fellow, Haematology/Oncology, Hospital for Sick Children): project title: Utility of radiographic investigations of children undergoing intensive myelosuppresive therapy who have prolonged fever and neutropenia (presented at ASPHO 2013)

2011-2012 Sumit Gupta (Clinical Fellow, Haematology/Oncology, Hospital for Sick Children), Project title: The utility of end of treatment bone marrow aspirates in pediatric acute lymphoblastic leukemia. (presented at SIOP 2011)

Rabah Al Mahmoud (Clinical Fellow, Haematology/Oncology, Hospital for Sick Children), Project title: Peripheral T cell lymphoma in children and adolescents: a single institution experience (presented at T cell Lymphoma Forum 2011)

- 2008-2009 Xiaxin Li (Clinical Fellow, haematology/oncology, Rainbow Babies and Children's Hospital). Project title: Hereditary persistence of alpha feto protein.
- 2005-2006 Mona Shah (Clinical Fellow, haematology/oncology rainbow Babies and Children's Hospital) Project title: Evaluation of prolongedaPTT values in the pediatric population

UNDERGRADUATE STUDENTS

1. Determinants of Community Health, University of Toronto, project supervisor, 2012-2013

Ryan Lo, medical student. Project: Sleep and fatigue in adolescents with acute lymphoblastic leukemia.

Jake Zymora, medical student, Project Supportive care needs of parents on hematology oncology inpatient unit.

SUMMER STUDENTS

Hana Kinoshita, A review of our current practices for referrals of pediatric patients with ALL for neuropsychological assessment. summer 2012 (presented at POGO, 2013)

Scholarly Oversight Committee Chair, haematology oncology trainees:

Muhammad Ali: 2010-2012 Kevin Weingarten 2010-2012 Marta Wilejto: 2011- 2014 Sylvia Cheng: 2011- 2014 Dave Lysecki: 2012- 2015

H. Teaching and Design

- 2. Arts and Science of Clinical Medicine II (ACSM II): 2007, 2008, 2009, 2012, 2013
- 3. ASCM II OSCE examiner May 2009, 2010, March 2011
- 4. Paediatric Clerkship Seminar Series: ITP lecture 2009, 2010
- 5. Haematology Oncology Fellows Continuity Clinic conference: one hour weekly, 2010-2012, one hour monthly 2012-2014
- 6. "Answers on cancers" workshop for cancer camp volunteers, annually 2010-2014
- 7. Seminar: Core teaching on infectious complications of cancer chemotherapy, monthly, 2009-2012
- 8. Fellow academic half day: "Non Hodgkins Lymphoma" 2011, 2012, 2013
- 9. Pediatric resident PeRLs lecture, "Fever and Neutropenia", June 14, 2011
- 10. Fellow academic half day: Chemotherapy safety, annually 2012-2104
- 11. Pediatric resident PeRLs lecture, Lymphadenopathy, August 14, 2012
- 12. Pediatric longitudinal experience (PedsLE), University of Toronto, Jan-Feb 2011
- 13. Oncology Review: PGY4 residents, Hospital for Sick Children, Sept 10, 2013
- 14. Seminar: Fever and Neutropenia, Fellows orientation, July, annually 2011-2014