Department of Paediatrics
The Hospital for Sick Children
Developing new health strategies
Introduction

Dedicated to improving children’s health through advances in clinical care and research and the education of future caregivers.
Chair’s Report

On July 1, 2006, Hugh O’Brodovich stepped down after 10 outstanding years of leadership of the Department of Paediatrics at The Hospital for Sick Children (SickKids) and the University of Toronto (U of T). The transition has been smooth, in large part because of the commitment of Hugh and his team to academic excellence and fiscal responsibility. The 2006-07 academic year was one of ongoing high achievement in all aspects of academic paediatrics. This annual report attests to the magnificent nature of the Department’s accomplishments.

What are the metrics of success? In research, they are relatively easily identified: more than 700 papers published annually, frequent invitations to faculty for plenary lectures at prestigious meetings or visiting professorships, increasing grant funding (the vast majority of our faculty has some funding to support their research) and increasing numbers of research trainees.

In education, we completed the Royal College of Physicians and Surgeons of Canada external review with overall good success, attracted a superb cohort of core paediatric residents and an ever increasing number of subspecialty trainees. Last year, there were about 60 residents, 60 Royal College approved trainees in subspecialty programs, and 209 other trainees in both clinical and research programs. Increasing numbers of our faculty have taken education as their career path either doing a Masters in Education or the Education Scholars Program at the Centre for Faculty Development at the University of Toronto.

Finally, clinically, we continue to provide outstanding tertiary and quaternary care to the children of Ontario, partner with the paediatric academic health science centres in Ontario (as part of the relatively new Provincial Council for Children’s Health, PCCH) and community programs (in the context of the Child Health Network of the GTA).

The challenges of the past year have included recruitment of new faculty to fill vacancies due to retirement, departures and new opportunities. So far, about 20 new faculty members have joined the Department across nearly all of the divisions. Furthermore, a number of Division Heads (Chaim Roifman, Immunology, Andrew Redington, Cardiology and Denis Geary, Nephrology) have been reappointed and a new one appointed (Mark Palmer, Endocrinology). Our new recruits represent an enormously accomplished and talented group of people from all around the world. We have great expectations!

Another challenge has been the protracted, but eventually successful, renegotiation of our Alternate Funding Plan with the Ministry of Health and Long-Term Care. The new plan, although relatively short in duration, allows us to maintain fiscal stability and remain competitive.

The major changes in leadership at the level of the Paediatric Executive have been the move of Susan Tallett to Director of the SickKids Learning Institute and her replacement by Rayfel Schneider, and the addition of Ben Vozzolo as Director of Administrative Services in the Department of Paediatrics. Rayfel’s mandate is to oversee all of the educational activities of the Department and ensure that we remain at the cutting edge of educational activities. Rayfel’s team includes new Program Directors in
both Postgraduate (Adelle Atkinson) and Undergraduate (Stacey Bernstein) Medical Education, as well as Suzan Schneeweiss, Director of Continuing Education. New directions in education can be expected from this highly talented and enthusiastic group. Ben has more than ably taken over where Rich Gerber left off, overseeing the department’s financial well-being and supporting the administrative staff across all of the divisions.

The next steps for our department include: completion of the reevaluation of our Career Development and Compensation Program, and development of our strategic goals with alignment with those of SickKids and the University of Toronto. This has begun and will culminate later this year in transparent processes and plans.

In the meantime, the Department of Paediatrics remains highly accomplished and productive, though not without its stresses and strains. I am greatly indebted to all members of the department for their hard work this past year and for the patience and encouragement they have all offered me. Special thanks to the Paediatric Executive, Daune MacGregor, Norman Rosenblum, Sue Tallett and Ben Vozzolo, and to the hospital administration, Mary Jo Haddad, CEO and President, Seonag Macrae, VP Child Health Services Portfolio, and Ron Laxer, VP Education and Quality, and Dean Cathy Whiteside of the University of Toronto’s Faculty of Medicine for their enormous support.

DENIS DANEMAN, MB, BCh, FRCPC
Chair of Paediatrics University of Toronto
Paediatrician-in-Chief, The Hospital for Sick Children
R.S. McLaughlin Chair in Paediatrics at The Hospital for Sick Children

THE PAEDIATRIC EXECUTIVE COMMITTEE
Left to right: Ms. Seonag Macrae, Dr. Daune MacGregor, Mr. Ben Vozzolo, Dr. Denis Daneman, Dr. Norman Rosenblum, Dr. Susan Tallett

DENIS DANEMAN, MB, BCh, FRCPC
Division Head
Dr. Debra K. Katzman

Full-Time
Dr. Eudice Goldberg
Dr. Miriam Kaufman
Dr. Karen Leslie
Dr. Cathleen Steinegger

Part-Time
Dr. Michael Falk
Dr. Miriam Rossi
Dr. Rahul Saxena

Clinical Fellows
Dr. Fadia Al-Buhairan
Dr. Rosawan Areemit
Dr. Boonying Manaboriboon
Dr. Ellie Vyver

Administrative Staff
Sawsan Bakhit
Ursula Pajak
Burnett Wint
DIVISIONAL OVERVIEW

The Division of Adolescent Medicine continues to focus its clinical activities in five program areas – Eating Disorders, The Good 2 Go Transition Program, Substance Abuse, Young Families, and Complex Adolescent Problems.

The Eating Disorders Program at The Hospital for Sick Children continues to be the provincial centre for child and adolescent eating disorders providing a variety of integrated clinical services (inpatient, day treatment, outpatient and consultation) to adolescents and their families. Over the past year, the Ministry of Health and Long-Term Care (MOHLTC) granted new funding to enhance intensive inpatient services for children and adolescents with eating disorders at SickKids. In addition, other new initiatives include the integration of multi-family group therapy at SickKids and throughout the province. Over the past year, these year-long groups were completed in three provincial centers. In the fall of 2007, SickKids will lead in providing multi-family group therapy training to professionals from several centres and will continue to provide groups to families at the hospital. The collaborative Ontario Community Outreach Program (SickKids, University Health Network and the MOHLTC) continues to train health care professionals around the province in the assessment and treatment of eating disorders and has been an extremely successful educational initiative.

A smooth transition from paediatric to adult health care is a priority for all SickKids patients. The Good 2 Go Transition Team, consisting of a Nurse Practitioner, Psychologist, Social Worker and Paediatrician, has made tremendous strides since its inception in August 2006. The team runs a weekly transition clinic in Adolescent Medicine, as well as being involved with transition clinics in other parts of the hospital. There have been meetings with over 15 clinical programs, most of which have already adopted new transition activities. Launched in January 2007, the Good 2 Go website offers a constantly expanding transition bibliography, a transition menu, and links to various resources. MyHealth Passport is a wallet-sized card with health information that is created by a teen with a health care provider, the process combining patient education and empowerment with a tool for sharing health information. A comprehensive transition intervention and research study is being developed with the Division of Cardiology.

The Adolescent Substance Abuse Outreach Program and the Substance Abuse Day Treatment Program continue to provide exemplary clinical care to adolescents and their families with substance abuse problems. In-depth psychotherapy, brief counseling, group work and family support are fundamental services offered to our patients. As well, all patients receive regular medical assessments to assess for medical sequelae of their substance use and other medical concerns that result from a high-risk lifestyle. The program recently completed a six-month pilot project with the Department of Psychiatry, providing substance abuse training for child-track residents and receiving psychiatric assessment and treatment for co-morbid psychiatric diagnoses for adolescents in the Program. Due to the success of the pilot project, a second six-month program is underway.

The Day Treatment Program expanded their services this year to include a summer program, combining treatment, academic and medical support to day treatment patients. All Substance Abuse Program staff work collaboratively with many other organizations to provide comprehensive care to at-risk youth. Staff members also provide extensive education at many levels including trainees from a variety of disciplines, staff in other areas of the hospital, health care professionals and other professionals in the community as well as adolescents and their caregivers. Expanded training initiatives have been implemented for Adolescent Medicine fellows and for staff in the Emergency Department. As well, enhanced training in substance use and abuse for paediatric residents will be initiated this academic year. In addition to the many outreach educational activities of the Program, staff presented at
international conferences in New Zealand and Australia at the invitation of local health care professionals. Members of our staff are involved in many aspects of service development, both at local and regional levels, and provide expertise in child and youth substance use and abuse to various committees dealing with prevention and treatment issues at the municipal, provincial, and national levels.

The Complex Adolescent Patient Program (CAPP) continues to focus on adolescents with a chronic illness or disability. These services are provided in the Teen Clinic as well as in collaboration with renal, cardiac and lung transplant clinics, HIV clinic, SLE clinic and through inpatient consultations. This past year, a combined CAPP/SCAN clinic has been established to collaboratively assess and provide education and support for adolescents identified as engaging in high-risk sexual behaviours. The CAPP clinic has formalized an advocacy, outreach partnership with St. Stephen’s Community House to enable youth in the downtown core to access health information and necessary health services otherwise unavailable to them. The goal of the clinic is to reduce high-risk health behaviours, as well as to prevent pregnancy, sexual assault and sexually transmitted infections by promoting healthy sexuality and safe sexual relationships. Public education is an important part of CAPP and is delivered through talks at schools and to parent groups, media interviews and publications.

The Young Families Program (YFP) continues to focus on providing health care, advocacy, support and education to high-risk adolescent parents and their children. The YFP collaborates with several agencies that provide services to high-risk adolescent parents including prenatal homes, health services and child protection agencies. In particular the YFP provides a consultation clinic at “Jessie’s Centre for Teenagers” and provides educational, supportive and policy recommendations. In partnership with the SCAN team the “High Risk Project” has been operational since 2004 when external funding was established to standardize clinical care for adolescent parents and their children. Assessment and intervention in the areas of growth and development, infant and adolescent mental health, maltreatment, and social determinants of health provide the basis for research in adolescent parenting. Interdisciplinary team members continue to disseminate information and provide education to health professionals in a variety of settings through workshops, poster presentations, and clinical practice guidelines.

Research activities are an integral part of the activities of the faculty and trainees of the Division. Each of our clinical areas provides the substrate for our clinical research endeavours in the Division. As such, research activities include the medical complications of eating disorders with specific emphasis on osteoporosis, epidemiology of early-onset eating disorders, evaluation of family-based treatment for adolescents with eating disorders, the evaluation of the use of information technology for health promotion with youth, treatment outcomes in adolescent substance use, HIV educational interventions with incarcerated youth, and health values in adolescents with chronic illnesses.

Members of the Division continue to make significant educational contributions locally, provincially, nationally and internationally. Members of our division hold leadership roles in the SickKids Summer Student Program, co-ordination of the Mentorship Program for Clinician-Teachers and -Educators at the Centre for Faculty Development, and the organization of the international annual scientific meeting on adolescent health at the Society for Adolescent Medicine.

Division members play a leading role in national and international clinical, education and research committees including the Infant Mental Health Promotion Project, Canadian Paediatric Society, American Academy of Pediatrics, Society for Adolescent Medicine, Canadian Association for Medical Education and Academy for Eating Disorders.

Over the past three years, the Division has taken the lead in pursuing paediatric subspecialty certification for Adolescent Medicine through the Royal College of Physicians and Surgeons of Canada (RCPSC). Adolescent Medicine was endorsed at the RCPSC’s Council in May 2007, and will now become the 63rd recognized discipline of the RCPSC as a subspecialty of Paediatrics.
HONOURS AND AWARDS
Katzman DK: Chair, Adolescent Medicine Subspecialty Working Group Committee, Royal College of Physicians and Surgeons of Canada

PUBLICATIONS


Leadership: “Creating Communities of Practice for Interprofessional Collaboration (IPC) in Toronto” Kwan D, Leslie K, Lief F, Nasmith L, Gondaslon I, Reeves S, Silver I. Central project for a larger initiative funded by: Ministry of Health and Long-Term Care Interprofessional, Mentorship, Preceptorship, Leadership and Coaching Fund ($3,400,000 2007)


BOOKS AND BOOK CHAPTERS


DIVISIONAL OVERVIEW

The Division of Cardiology was formally established in the 1940’s and is now one of the largest and most successful in the world. Its philosophy has remained unchanged since its inception over sixty years ago; to provide the highest quality care in an evidence-based environment of clinical innovation and scientific discovery.

Over the past decade, the Divisional activities, in close collaboration with surgical and intensive care colleagues, have contributed to our markedly improved preoperative diagnosis and postoperative outcomes for children undergoing cardiac surgery, led the field in development of therapeutic catheter techniques, made important contributions to our understanding of fetal cardiac medicine, established one of the largest paediatric cardiac transplantation centres worldwide, and has won international recognition for its contribution in the field of epidemiology of acquired and congenital heart disease and surgical outcomes. Each of these areas has provided the substrate for the large clinical research output of the Division which is underpinned by our world-class laboratory science program. One of the most exciting clinical developments has been the recent commissioning of an integrated suite of catheter laboratories and magnetic resonance scanning facility. This unique fusion will allow ‘simultaneous’ multi-mode investigation and treatment, setting the scene for MRI-guided interventional procedures in children, and providing for unique physiologic insights into cardiovascular disease. This philosophy of clinical, academic and administrative integration led to formation of the Labatt Family Heart Centre in 2007, with major new financial support for the formation of chairs and fellowships, development of infrastructure, and the endowment of an innovation fund providing internal revenue for seed-funding and Heart Centre-sponsored thematic research.

The cardiovascular research focus within the Research Institute has made fundamental contributions to our understanding of the cellular biology and molecular genetics of pulmonary vascular bed, with recent diversification to include the study of the fetal myocardial development, and developmental genetics, detailed study of the intercellular structure of the heart and vessels, electrophysiology of the developing heart and immunology of cardiac transplantation. While undergoing a change in leadership, it is expected that high quality basic and translational research, with an emphasis on direct clinical applicability, will continue to form the bedrock of our academic program.

Finally, the Royal College accredited Paediatric Cardiology Training Program, is the largest in Canada and one of the largest and most sought after in North America. As such, its fellows have populated cardiology groups throughout the world, many going on to become leaders of our specialty.
HONOURS AND AWARDS

Dr. Anne Dipchand: James C. Fallis Teaching Award (Invited Speaker), Division of Paediatric Emergency Medicine, The Hospital for Sick Children, 2006.

Dr. Paul Kantor: Second Prize, Oral Abstract Presentation. “Resting cardiac index, ejection fraction ad exercise capacity in a pediatric heart failure clinic population”. The Second International Conference on Heart Failure in Children and Young Adults, Laguna Niguel, CA, 2006.


Dr. Dragos Predescu: Third Prize, abstract poster annual resident research day: “Resting cardiac index, ejection fraction ad exercise capacity in a pediatric heart failure clinic population”. The Second International Conference on Heart Failure in Children and Young Adults, Laguna Niguel, CA. 2006.

PUBLICATIONS


Dr. Bob Hamilton


FUNDING


Characterization of circulating effectors and temporal profiling of remote ischaemic preconditioning. Redington AN, Callahan J, Gross GJ, Kharbanda R. Canadian Institutes of Health Research ($324,951 2006-2009)


Contractile and electrophysiologic adaptations to constrained heart rate conditions. Gross GJ, Redington AN. The Heart and Stroke Foundation of Ontario ($209,097 2006-2008)


Effects of remote ischemic preconditioning on the clinical investigation and genomic responses to open heart surgery in children. Redington AN, McCrindle BW. Canadian Institutes of Health Research ($100,000 2007-2008)


HLA Sensitization: Prevalence and impact of alloantibodies in paediatric heart transplant recipients. Dipchand AI, Pollock-Barziv S, McCrindle BM. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($10,000 2007-2008)

Improving paediatric cardiac care in Ontario: Leveraging information to enhance patient outcomes, provide accountability and system monitoring. Kantor PF, Syed N, MacDonald S. Ontario Ministry of Health and Long-Term Care ($250,000 2006-2007)


Molecular expression and physiology in developing atrioventricular nodal cells. Hamilton RM, Gross GJ, Silverman ED. Canadian Institutes of Health Research ($370,500 2006-2009)


Perioperative use of thymoglobulin in paediatric heart transplant recipients. Dipchand AI, Pollock-Barziv SM, Allain-Rooney T, Kantor PF. Genzyme Canada ($5,000 2006-2007)


Role of chronic inflammation and systemic lupus erythematosus-related factors in the development of premature atherosclerosis in paediatric SLE. Silverman ED, Bargman JM, Beyene J, Bradley TJ. The Heart and Stroke Foundation of Ontario ($304,826 2006-2009)

Temporal profiling and circulating effectors of remote ischemic preconditioning. Redington AN, Callahan J. Canadian Institutes of Health Research ($284,000 2005-2008)


The SAMIS Trial: Multicenter study of antiarrhythmic medications for treatment of infants with supraventricular tachycardia. Sanatani, S, Stephenson EA, Potts J, McCrindle BM, Etheridge S. The Heart and Stroke Foundation of British Columbia and Yukon ($440,060 2006-2010)


Ventricular force and vascular stiffness in the evaluation of paediatric heart failure. Kantor PF, Bradley T (co-PI), Roche SL, Slorach C. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($9,100 1997)


Division Head
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Dr. Annette Feigenbaum

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Dr. Ahmad Teebi

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Dr. Tawfeg Ben-Omran

Dr. Hanna Faghfouri
Dr. Sharan Goobie
Dr. Linda Kim
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Delizia Ferri
Laurie Furtado
Sandy Maksimowska
Hamali Maru

Ardian Shtylla
Rozmin Visrama
Clinical and Metabolic Genetics

DIVISIONAL OVERVIEW
The Division of Clinical and Metabolic Genetics is recognized nationally and internationally for its contributions to clinical genetics, genetics research and education.

One recent example of such leadership included the convening of key individuals from across the province for a retreat aimed at integrating negotiations with the Ontario Ministry of Health for resourcing clinical and laboratory genetic services. This highly successful provincial retreat was sponsored by the Department of Paediatrics and a second meeting is planned for 2008.

New initiatives include the establishment of the DNA Resource Centre dedicated to facilitating genetic testing that is not available at SickKids. The DNA Resource Centre provides up-to-date information regarding genetic testing available nationally and internationally, ensuring that all patients at SickKids have access to cutting-edge clinical and research testing options.

Expansion of provincial newborn screening has led to the development of an independent Newborn Screening Program which is staffed by two nurses, a genetic counsellor, a dietician, a social worker, an information coordinator and a metabolic geneticist. The Newborn Screening Program involves multiple subspecialties at SickKids, including Genetics, Endocrinology, Haematology and Respiratory.

The reorganization of the Neurofibromatosis type1 and Skeletal Dysplasia Clinics highlight the Division’s commitment to enhance patient services through interdisciplinary care.

Research endeavours in the Division are a vital part of our program and currently focus on the translation of new genomic information for patients and family members. A rapid increase in the use of microarrays for genetic testing has expanded the need for clinical evaluation of new data being generated so that appropriate and relevant information can be provided to patients and their families.

There were two awards for the Sixth Annual Starbucks Clinical Research Summer Students Competition. The recipients were Katie Marchington for a study on autism and epigenetics and Margarita Kaliazina for a study of the resources required to transition pediatric genetic metabolic patients to adult hospitals.

The Division of Clinical and Metabolic Genetics has developed and participated in numerous educational activities for different training programs within the hospital. The Division provides excellent teaching opportunities with important links to the Research Institute and the Department of Laboratory Medicine. The Division directs Fellowship and Residency training programs in genetic medicine as well as the MSc Program in Genetic Counselling which was reaccredited this past year by the Ontario Council of Graduate Studies.


Funding

Canadian Molecular Cytogenetics Platform, Friedman JM, Chitayat D: Canadian Foundation for Innovation ($4,512,925 2005-2010)

Rare diseases clinical research centre for urea cycle disorders. Clarke JTR, Feigenbaum A. Canadian Institutes of Health Research ($25,000 2008)

Canadian Fabry disease initiative. Clarke JTR, multiple co-investigators across Canada. Canadian Institutes of Health Research ($1,200,000 2006)

Hunter Outcome Survey (HOS). Clarke JTR. TKT/Shire ($16,000 2006)

Computer assisted teaching software project. Clarke JTR, Al-Jasmi F. TKT/Shire ($80,000 2006)

Phenoptin in PKU PKU 004. Phase III multi-center open label variable dose clinical trial. Feigenbaum A. Biomarin Pharmaceuticals ($41,000 2006-2007)


The National Genetic and Birth Defects Registry. Teebi AS. Prince Salman Institute for Handicap, Saudi Arabia ($750,000 2003-2008)


Gene expression of neuronal progenitors in a 1q22-linked familial subtype of schizophrenia. McCurdy R, Weksberg R. Canadian Psychiatric Research Foundation ($80,000 2005-2007)


Clinical Pharmacology and Toxicology

DIVISIONAL OVERVIEW
The Division of Clinical Pharmacology and Toxicology focuses on a wide range of drug-related issues in paediatrics. The division is one of the largest and the most active paediatric pharmacology programs internationally. Our major clinical activities include a consultation service, the Motherisk Program, the Ontario Regional Poison Information Centre, and DART (Drug Allergy, Reactions and Toxicity) clinic, collaborating with the Division of Allergy and Immunology to provide specialized outpatient follow-up and management for those with various drug/toxin-related problems. The two toxicology information centres annually receive about 35,000 (Motherisk) and 75,000 (Poison Information Centre) inquiries, which have reached the limit of the response capacity of the systems. The Motherisk Program directed by Dr. Gideon Koren continues disseminating new knowledge in the field of drug safety for fetus and breastfeeding babies. The Ontario Regional Poison Information Centre led by Dr. Margaret Thompson has now become a hub for medical toxicology training, attracting many residents and fellows nationally and internationally. The Palliative and Bereavement Care Service directed by Dr. Christine Newman has recently joined the division that provides expertise specifically on drug therapy for terminally ill patients.

The division is one of the two major training sites of the Royal College-accredited Clinical Pharmacology Residency program of the University of Toronto. Our medical residency training program spearheaded the recent change of the specialty residency training structure to add Emergency Medicine to the existing four entry disciplines, which include Paediatrics. This change enables us to train residents with emergency medicine background in the clinical toxicology stream of our education program.

Our research programs focus on drug metabolizing enzymes and their regulation, drug transporters, placental and mammary gland drug transport and metabolism, and reproductive toxicology and teratology, including fetal alcohol syndrome research. The breadth and depth of these research programs are shown in the publication and funding records.

In 2006 Dr. Anna Taddio received the Piafsky Young Investigator Award and Dr. Gideon Koren received the Education Award at the Canadian Society of Clinical Pharmacology.
Division Head
Dr. Shinya Ito

Full-Time
Dr. David Juurlink

Part-Time
Dr. Gideon Koren
Dr. Christine Newman
Dr. Irena Nulman
Dr. Margaret Thompson

Scientific Staff
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Cross-Appointees/
Clinical
Dr. Sylvain Baruchel
Dr. Ran Goldman
Dr. Sheila Jacobson
Dr. Prashant Joshi
Dr. Christopher Parshuram

Clinical Fellows
Dr. Denis Scolinik
Dr. Neil Shear
Dr. Marco Sivilotti

Cross-Appointees/
Scientific
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Dr. Tom Emanson
Dr. Anna Taddio
Dr. Bonnie Stevens

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Dr. Shin-ichiro Takahashi

Research Associate
Katarina Aleksa

Residents
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(Emergency Medicine, Clinical Pharmacology)

Administrative Staff
Ms. Niki Balamatsis
Ms. Sarah Bondy
Ms. Hila Halishtok
Ms. Leah Moscato
Ms. Donna Tedesco
**HONOURS AND AWARDS**

Koren G: Canadian Society for Clinical Pharmacology, Education Award, 2006.


Taddeo A: Piafsky Young Investigators Award, 2006.

**PUBLICATIONS**


Einanson A, Koren G: Defective alleles may not have contributed to adverse effects. Therapeutic Drug Monitoring 2006: 28: pp 142-143.


FUNDING
Child neurodevelopment and pharmacokinetic correlations following treatment with supratherapeutic doses of Diclectin for nausea and vomiting of pregnancy. Nulman I. Canadian Institutes of Health Research ($487,600 and $68,267 2006)

Child neurodevelopment following in utero exposure to maternal azathioprine. Nulman I. Physicians’ Services Incorporated Foundation ($146,000 2006)


Determinants of renal handling of drugs during development. Koren G. Canadian Institutes of Health Research ($583,800 2003-2008)

Drugs and human milk. Ito S. Canadian Institutes of Health Research ($645,998 2002-2007)


Hair analysis for cortisol and testosterone. VanUlm S, Koren G. Physicians’ Services Incorporated Foundation ($130,000 2006-2008)

Improving prenatal vitamins to women. Koren G. Duchesnay Incorporated ($400,000 2004-2007)

New Emerging Team (NET) grant. Koren G, Brien J. Canadian Institutes for Health Research ($1,250,000 2002-2007)

Neurodevelopment after fetal exposure to venlafaxine. Nulman I, Koren G. Wyeth Incorporated ($120,000 2004-2006)


Novel transcriptional control of human CYP3A. Ito S. Canadian Institutes of Health Research ($340,540 2006-2009)


DIVISIONAL OVERVIEW

The Division of Developmental Paediatrics was created within the Faculty of Medicine’s Department of Paediatrics effective March 1, 2005 in response to recent major advances in this important area of paediatrics. The Royal College of Physicians and Surgeons of Canada has recognized that developmental paediatrics represents a defined body of knowledge meriting recognition as a separate subspecialty area within paediatrics. The training program at the University of Toronto was granted “full accredited with certification” status by the College. SickKids and Bloorview Kids Rehab (formerly Bloorview MacMillan Children’s Centre) have created an enhanced child development program which provides a single access point and triage system for families and consolidates resources. As well, leaders at SickKids and Bloorview Kids Rehab research institutes are working closely together to augment research activities related to developmental disorders.

HONOURS AND AWARDS

Jethwa A: The Roszel Developmental Paediatric Research Award, 2007

PUBLICATIONS


BOOKS AND BOOK CHAPTERS


FUNDING


Evaluation with a message: Interprofessional assessment of professionalism. Milo-Manson G, Kennedy T. Royal College of Physicians & Surgeons of Canada Medical Education Grant ($1,125 2006)


Interprofessional Disaster/ Emergency Action Studies (‘IDEAS’): Promoting interprofessional collaboration and team building to deliver safe and effective casualty and patient-centred practice in disasters/emergencies and pandemics. Rosenberg J (Member of Steering Committee). Health Canada Interprofessional Education for Collaborative Patient-Centred Practice (IECPCP) ($792,011 2006-2007)


Acting Division Head
Dr. Diane Wherrett

Full-Time
Dr. Denis Daneman
Dr. Jill Hamilton
Dr. Kusiel Perlman
Dr. Etienne Sochett

Part-Time
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Dr. Susan Kirsch
Dr. Stacey Urbach

Gynaecology
Dr. Lisa Allen
Dr. Nicolette Caccia

Dr. Sari Kives
Dr. Melanie Ornstein

Gynaecology Fellows
Dr. Rachel Spitzer

Cross-Appointees
Dr. Amira Klip
Dr. Joanne Rotet

Honorary
Dr. Robert Ehrlich

Subspeciality Residents/Clinical Fellows
Dr. Abdulla Aljunaibi
Dr. Bojana Babic
Dr. Louise Conwell
Dr. Ara Healey

Dr. Dror Kolton
Dr. Clodagh O’Gorman

Research Fellows
Dr. Shazhan Ameid
Dr. David Cherney
Dr. Meranda Nakhla

Administrative Staff
Mira Milne
Joyce Robinson
Minet Smith
Zarine Tilak
DIVISIONAL OVERVIEW

2006-2007 continued to be a highly productive time for the Division of Endocrinology with ongoing development of existing programs and new innovations. We have had eight trainees in our subspecialty training program: four Canadian, one Israeli, one Australian, one Irish and one from the UAE. It has also been a year of changes, as Dr. Denis Daneman is now Chair of Paediatrics and Paediatrician in Chief at The Hospital for Sick Children. Dr. Diane Wherrett has been acting division head for the past year. Dr. Mark Palmert will be joining the division as the new head in September 2007.

Our areas of clinical focus continue to be: (i) Diabetes: our comprehensive program provides ongoing care to nearly 1,000 children and teens with diabetes, including a program for comprehensive assessment and treatment for adolescents with chronically poor diabetes control; (ii) General Endocrinology emphasizing the areas of growth, thyroid disease, intersex conditions and reproductive health; (iii) Calcium: the Calcium-Bone and Osteoporosis Clinics assess children with abnormal bone health from a wide variety of causes; (iv) Gynaecology section: provides care to pre-teen and adolescent girls across a wide spectrum of disorders. Recent initiatives include the development of pathways for the care of children with thyroid cancer in collaboration with Oncology, Otolaryngology and Nuclear Medicine.

Our research efforts have targeted the following areas: (i) prediction and prevention of type 1 diabetes: our group is involved in the multinational TrialNet and TRIGR study groups; (ii) implications of insulin resistance and obesity in children and adolescents and the evolution of them in young children; (iii) study of the factors affecting metabolic control and the early complications of diabetes; (iv) psychosocial and psychological outcomes in diabetes and other endocrine disorders; and (v) evaluation of disorders of calcium and bone mineral metabolism in paediatrics.
HONOURS AND AWARDS


Hamilton J: The Hospital for Sick Children, Department of Paediatrics Richard Rowe Junior Faculty Award for Excellence in Clinical Medicine – Runner Up, 2006.


PUBLICATIONS


BOOKS AND BOOK CHAPTERS

FUNDING
Bypassing insulin resistance of muscle cells caused by ceramide, oxidative stress and macrophage-co-culture. Klip A. Canadian Diabetes Association ($300,000 2006-2009)
Combined diazoxide and metformin therapy in children with hypocalcemic obesity secondary to craniopharyngioma: A Pilot Study. Hamilton J, Daneman D, Ahmet A. Canadian Institutes of Health Research ($49,500 2006-2008)
Comparison of continuous versus cyclic use of a 30-MCG ethinyl estradiol 0.15 mg desogestrel oral contraceptive pill in adolescents. Allen L, Brown C. Azko Nobel – Organon Canada ($24,500 2006-2008)
Comparison of continuous versus cyclic use of a 30-MCG ethinyl estradiol 0.15 mg desogestrel oral contraceptive pill in adolescents. Allen L, Brown C. Physicians’ Services Incorporated Foundation ($75,000 2006-2008)
Cross-sectional study of overweight in paediatric survivors of acute lymphoblastic leukemia. Nathan PC, Urbach SL, Barrera M, Barron M, D'Agostino N, Staneland P, Charon, Greenberg ML. The University of Toronto, Faculty of Medicine Dean’s Fund ($9,998 2007)
Fetal alcohol syndrome: Oxidative stress and innovative therapies: (Aii) Structural manifestations of FAS/ARND brain injury. Rovet J. Canadian Institutes of Health Research New Emerging Team Grant ($50,000 2002-2007)
Growth hormone therapy and bone quality in paediatric osteoporosis. Sochett E, Grynpas M. Eli Lilly Canada ($125,000 2006-2009)
Hemodynamic modulation in type 1 diabetes. Miller J, Sochett E, Cherney D. Canadian Institutes of Health Research ($105,000 2007-2012)
Hormonal regulation of p38MAPK and its implications for glucose transport. Klip A. Canadian Institutes of Health Research ($643,800 2002-2007)
Insulin sensitization by muscle contraction pathways: implications for insulin resistance. Klip A. Canadian Institutes of Health Research/ National Natural Science Foundation of China – Canada Joint Health Research Initiative – Grants Program ($90,000 2006-2009)
Intracellular compartment plasticity and signal transmission in insulin action. Klip A. Canadian Institutes of Health Research ($759,560 2005-2010)
MRI analyses of visuospatial processing deficits in children born preterm or with congenital hypothyroidism. Rovet J, McAndrews MP, Desrocher M, Sheard E, Asztalos E. March of Dimes (US$339,945 2007-2008)
Multiple courses of antenatal corticosteroids for preterm birth study: A five-year follow-up (MACS-5). Asztalos E, Rovet J. Canadian Institutes of Health Research ($3,585,161 2005-2012)
Neuroimaging studies of hippocampal formation in children with pre- and postnatal thyroid hormone insufficiencies. Rovet J, Desrocher M, McAndrews MP, Sheard E. Canadian Institutes of Health Research ($728,640 2006-2011)
The genetics and neuroendocrinology of short stature. Hamilton J. Primary Investigator SickKids site. Lilly International Growth Study (GeNeSIS) ($58,542 2002-2007)
Thyroid hormone insufficiencies and visual perceptual deficits in preterm infants. Rovet J, Westall C, Asztalos E, Perlman K, Heon E. March of Dimes (US$253,083 2004-2007)
TrialNet Clinical Center (Study group for prevention of type 1 diabetes). Wherrett DK, Mahon J, Daneman D. National Institutes of Health (US$1,187,072 2001-2008)
Type 1 Diabetes Genetics Consortium. Wherrett DK, Benaroya Research Institute (US$15,000 2004-ongoing)
DIVISIONAL OVERVIEW

The Division of Gastroenterology, Hepatology and Nutrition is recognized nationally and internationally for its contributions to clinical care, research and education in the field of gastroenterology, including hepatology, nutrition and transplantation. It is one of the only programs in North America offering a full spectrum of paediatric ‘GI-coverage’ including clinical nutrition, gastroenterology, hepatology and transplantation. The division has a fully accredited three-year Royal College of Physicians and Surgeons of Canada Fellowship training program with three to four first-year fellows. Over the past year, four of our current research fellows (out of a total of nine) are combining a formal degree-granting program (MSc or PhD) with their research fellowship years.

With the retirement this year of Dr. Eve Roberts, the division hosts nine full-time staff, four part-time and two cross-appointed members. The main clinical programs in the division include inflammatory bowel disease, cystic fibrosis, luminal GI disorders, nutritional disorders, liver diseases and liver and small bowel transplantation. Our research spans the spectrum from basic and translational to patient-based in such areas as inflammatory bowel disease, pancreatic diseases, ulcer disease, liver diseases, GI microbiology and immunology, nutritional metabolism and nutrient requirements.

This year, once again, fellows in the division have been honoured with multiple awards, and fellowships. The staff members of the division have published over 90 peer-reviewed publications, 25 books or book chapters and have received well over $5 million of grant funding for projects spanning the next five years.

HONOURS AND AWARDS

Pencharz P: University of Toronto, Department of Paediatrics, Physician Research Award for Career Excellence, 2007.

Zlotkin S: International Ashoka Fellowship Award, 2007.

Zlotkin S: Canadian Institutes of Health Research National Knowledge Translation Award, 2006.

Zlotkin S: Member of the Order of Canada, 2007.

Benchimol E: Travel Award from the First International Gastrointestinal Eosinophil Research Symposium.


Guttman O: CASL/Schering Canada Fellowship Award, 2007.

Muise A: Canadian Society for Clinical Investigators (CSCI)/Canadian Institutes for Health Research Award for Excellence in Resident Research, 2007.

Muise A: Starr Medal for Outstanding Scholarship, Post-Graduate Medical Education, Faculty of Medicine, University of Toronto, 2006.

Muise A: Paediatric Research Award, Senior Trainee – Basic Science, Department of Paediatrics, The Hospital for Sick Children, University of Toronto, 2007.

Muise A: Elizabeth Arbuthnot Dyson Fellowship: Awarded upon Recommendation of the Chair of Paediatrics The Hospital for Sick Children and Joseph M. West Family Memorial Fund, Faculty of Medicine, University of Toronto, 2006.


Turner D: Postgraduate Research Award, Joseph M. West Family Memorial Fund and the Chisholm Memorial Fellowship, University of Toronto, 2006.


Turner D: Canadian Institute Health Research/Canadian Association of Gastroenterology/Crohn’s Colitis Foundation of Canada (Canadian Institutes of Health Research/CAG/CCFC) Fellowship Award, 2006.


Turner D: CanMeds Competencies Award, The Hospital for Sick Children, University of Toronto, 2007.
Division Head
Dr. Stanley Zlotkin

Full-Time
Dr. Peter Durie
Dr. Nicola Jones
Dr. Anne-Marie Griffiths
Dr. Simon Ling
Dr. Vicky Ng

Dr. Paul Pencharz
Dr. Eve Roberts
Dr. Philip Sherman
Dr. Mary Zachos

Part-Time
Dr. Glenn Berall
Dr. Carol Durno
Dr. Paul Kortan

Dr. Margaret Marcon
Dr. Gary May

Cross-Appointed
Dr. Mary Corey

Clinical Fellows
Dr. Orlee Guttman
Dr. Seamus Hussey

Dr. Mary Sherlock
Dr. Catharine Walsh

Research Fellows
Dr. Eric Benchimol
Dr. Juan Gana
Dr. Tanja Gonska
Dr. Alexis Muise
Dr. Khalid Noli

Subspecialty Residents
Dr. Ewurabena Simpson

Administrative Staff
Chona Callejo
Roxanne Francis
Margaret Johnson
Sherry Joy
Parasto Nejatie
Lilabool Shakur
Suzanne Shek

Dr. Dan Turner
Dr. Thomas Walters
Dr. Eytan Wine
Dr. Jason Yap
Tumer D: Chisholm Memorial Fellowship, the Elizabeth Arbuthnot Dayson Fellowship, the Nellie L. Farthing Fellowship, the William S. Fenwick Fellowship, the Miriam Neveren Memorial Award and the Joseph M. West Family Memorial Fund Research Award, 2007.


Wine E: University of Toronto Faculty of Medicine, Postgraduate Award, 2006.

PUBLICATIONS


Hsu JWC, Ball RO, Pencharz PB: Evidence that phenylalanine may not provide the full needs for aromatic amino acid needs in children. Pediatric Research 2007: 61; pp 361-365.


**BOOKS AND BOOK CHAPTERS**


**FUNDING**

A long-term multicenter open-label follow-up study of safety of infliximab as maintenance therapy of paediatric Crohn’s disease. Griffiths AM. Centocor, Inc. ($10,000/year 2003-2008)


A novel candidate susceptibility gene at the IBD6 locus, Rotin D, Griffiths A. Crohn’s and Colitis Foundation of Canada Innovations Grant. ($50,000 2007)

Arginine and CF. Grasemann H, Ratjen F, Pencharz P. Canadian Cystic Fibrosis Foundation ($140,000 2007-2010)

Assessment of activity and prediction of outcome in paediatric ulcerative colitis. Turner D, Steinhardt H, Griffiths A. Canadian Association of Gastroenterology/Canadian Institutes of Health Research ($65,000/year 2006-2008)

Cell signalling in mucosal inflammation and pain. Ellen R, Sherman P. Canadian Institutes for Health Research ($300,000/year 2002-2008)

Cell signals: Cell signaling in mucosal inflammation and pain. Ellen R, Jones N. Canadian Institutes of Health Research ($300,000 2002-2008)

Centre for the study of complex childhood diseases. Post M, Henkelman M, Ratjen F, Snead C, Pencharz P. Canadian Foundation for Innovation ($8,228,769 2006)

Clinical research facilitation award: Understanding CFTR folding, trafficking and membrane stability and applying this knowledge towards development of drug discovery assays. Durie PR. Cystic Fibrosis Foundation Therapeutics, Inc. (US$108,280 2007)

Clinician scientist training program in clinical nutrition research. Pencharz P. Canadian Institutes of Health Research ($265,000 2002-2008)

Comparative pathogenesis and public health significance of Verotoxin-producing E. coli serotypes. Karmali M, Sherman P. Canadian Institutes of Health Research Safe Food and Water Initiative ($897,000 2003-2006)

Determining the threshold of CFTR function that causes CF disease. Durie PR. Canadian Cystic Fibrosis Foundation ($110,000/year 2005-2008)


Disordered hepatocellular cu handling in the TxJ mouse, a model of Wilson Disease. Roberts EA. Canadian Institutes of Health Research ($73,640 2004-2007)


Functional outcomes after paediatric liver transplantation. Ng VL, Fecteau A. National Institutes of Health/NIDDK (US$6,000 2005-2007)


Host epithelial cell responses to attaching-effacing gastrointestinal pathogens. Sherman P. Canadian Institutes of Health Research ($679,517 2002-2007)

Host immune response to Helicobacter pylori infection. Jones NL. Canadian Institute of Health Research ($311,073 2004-2007)

IBD research database support. Griffiths AM. Schering Canada ($20,000/year 2005-ongoing)


Innovative strategies for optimizing management of infants with biliary atresia. Guttmann O (Co-Supervisor: Roberts EA) Canadian Association for the study of Liver Disease/Canadian Institutes of Health Research/Industry Fellowship ($55,000 2007-2008)

International collaboration project. Zlotkin S. Canadian Institutes of Health Research ($25,000 2006-2006)

International opportunities program development/planning. Zlotkin S. Canadian Institutes of Health Research ($25,000 2007-2008)

Investigation of Helicobacter pylori survival in host cells. Jones NL. Early Researcher Award, Ontario Ministry of Research and Innovation ($150,000 2006-2011)

Knowledge translation award. Zlotkin S. Canadian Institutes of Health Research ($100,000 2006-2007)

Molecular genetics, SBDS function and deficiency in SDS. Rommens JM, Durie PR. National Institutes of Health ($1,250,000 2004-2009)

Molecular mechanisms associated with H. pylori survival in macrophages. Jones NL. Canadian Association of Gastroenterology/Canadian Institutes of Health Research ($60,000 2004-2006)


Neonatal protein and energy metabolism. Pencharz P. Medical Research Council/Canadian Institutes of Health Research ($90,470 2005 and $136,817 2006-2011)

NOD2/CARD15 genotypes in the prediction of time to post-operative recurrence following resection for ileal Crohn’s disease. Walters T, Griffiths AM, Silverberg M. Canadian Association of Gastroenterology/Canadian Institutes of Health Research ($65,000/year 2005-2007)

Pico-Salax versus Poly-Ethylene Glycol for bowel cleanout before colonoscopy in children – A single blinded randomized controlled trial. Ling SC. Ferring Inc. ($24,000 2006-2007)

Predictors of response to intravenous corticosteroids therapy in paediatric patients with severe ulcerative colitis: A multi-center study. Griffiths AM. Schering Canada ($150,000 2007)

Role of probiotics in the management of experimental inflammatory bowel disease. Sherman PM, Crohn’s and Colitis Foundation of Canada “Fay Shapiro Cutler Grant-In-Aid Research” ($375,000 2007-2010)

SBDS protein expression in peripheral blood leukocytes. Durie PR, Rommens JM, Shimamura A. Shwachman Diamond Syndrome Foundation (US$30,000 2006-2007)

Sprinkles project support. Zlotkin S. HJ Heinz Company Foundation ($600,000 2006-2007)

Studies of paediatric liver transplantation (SPLIT). Ng V, Fecteau A. National Institutes of Health/National Institute of Diabetes and Digestive and Kidney Diseases (US$75,000 2005-2010)

Studies of primary sclerosing cholangitis “STOPSC”. Ling SC. The Morgan Foundation ($2,500 2006-2007)


The contribution of genetic modifiers of disease severity in cystic fibrosis to other diseases with similarities of clinical phenotype. Durie PR, Zieleni J. Genome Canada ($5,787,662 2005-2009)

The long-term effect of ALL and its treatment on bone mineralization. Pencharz P. Paediatric Oncology Group of Ontario ($30,310 2006)

The use of indicator amino acid oxidation to determine amino acid requirement. Pencharz P, Ball R. Medical Research Council/Canadian Institutes of Health Research ($152,967 2005-2010)

Therapeutic interventions for paediatric non-alcoholic fatty liver disease (NAFLD) Yap J. (Co-supervisor: Roberts EA) Canadian Institutes of Health Research/Strategic Training Initiative in Health Research ($40,000 2006-2008)
Division Head
Dr. Victor Blanchette

Full-Time
Dr. Oussama Abla
Dr. Ute Bartels
Dr. Sylvain Baruchel
Dr. Eric Bouffet
Dr. Leonardo Brandão
Dr. Michael Capra
Dr. Manuel Carcao
Dr. Helen Chan
Dr. John Doyle
Dr. Yigal Dror
Dr. Adam Gassas
Dr. Ron Grant
Dr. Abha Gupta
Dr. Hans Hitzer
Dr. Annie Huang
Dr. Meredith Irwin
Dr. Walter Kahr
Dr. Melanie Kirby
Dr. David Malkin
Dr. Ahmed Naqvi
Dr. Paul Nathan
Dr. Isaac Odame
Dr. Lillian Sung
Dr. Uri Tabori
Dr. Sheila Weitzman
Dr. Suzan Williams

Cross-Appointed/
Part-Time
Dr. Sean Bulley
Dr. Anthony Chan
Dr. Stephen Comay
Dr. Lee Ann Gallant
Dr. Mark Greenberg
Dr. David Hodgson

Dr. Nicole Inch
Dr. Normand Laperriere
Dr. Barbara-Ann Millar
Dr. Aubrey Maze
Dr. Fred Saunders
Dr. Ben Saxon
Dr. Jill Solomon
DIVISIONAL OVERVIEW

The Division of Haematology/Oncology provides a diagnostic service and specialist care for children <18 years of age with cancer (paediatric oncology), non-malignant blood disorders (paediatric hematology) and hematopoietic stem cell (blood and marrow) transplantation. The division is the largest of its kind in Canada and among the largest of such programs worldwide. Approximately 300 new cancer cases are registered in the oncology program each year, and The Hospital for Sick Children is the designated site for hematopoietic stem cell transplantation for patients <18 years of age in the Province of Ontario.

Reflecting the size and diversity of its clinical services, the division is functionally organized into six sections and three programs: the leukemia/lymphoma section (Section Head, Dr. Sheila Weltzman); the neurooncology (brain tumour) section (Section Head, Dr. Eric Bouffet); the solid tumour section (Section Head, Dr. Ron Grant); the blood and marrow transplantation section (Section Head, Dr. John Doyle); the haematology section (Section Head, Dr. Victor Blanchette); the inpatient services section (Section Head, Dr. Ahmed Naqvi); the aftercare (long-term follow up) program (Program Head, Dr. Mark Greenberg); the new agents and experimental therapies program (Program Head, Dr. Sylvain Baruchel); and the cancer genetics program (Program Co-Heads, Drs. David Malkin and Rosanna Weksberg). The haematology section has well-defined large programs in paediatric thrombosis and haemostasis, the paediatric haemoglobinopathies and the paediatric marrow failure syndromes. The division is an active member of the Children’s Oncology Group (COG), the largest paediatric clinical trials group in North America (SickKids Principal Investigator, Dr. David Malkin), and is committed to the improvement in outcomes of children with cancer through participation in ethics approved, prospective clinical trials. The division is a member of the paediatric oncology phase I Consortium of COG (Principal Investigator, Dr. Sylvain Baruchel), and is an active participant in activities of the Société Internationale d’Oncologie Pédiatrique (SIOP), the Histiocyte Society and the Berlin Frankfurt Munster (BFM) paediatric leukemia clinical trials group.

During the past year two full-time physicians were added to the division: Dr. Isaac Odame and Dr. Abha Gupta. Dr. Odame was appointed as Co-Director of the Division’s Haemoglobinopathy Program and Dr. Gupta joins the solid tumour section in the division.

Dr. Gupta holds a cross-appointment in the Department of Medical Oncology at the Princess Margaret Hospital where she will pursue her career interest in sarcomas and bone tumours in adolescents and young adults.

The division is the largest Royal College of Physicians and Surgeons of Canada accredited training program for the specialty paediatric haematology/oncology in Canada (Training Program Director, Dr. Ahmed Naqvi). The education program in the division also includes a very large international training program in paediatric haematology/oncology and offers subspecialty training opportunities in areas such as paediatric neurooncology, cancer genetics, blood and marrow transplant and paediatric haemostasis. Research in the division spans clinical to basic science with a special focus on translational research. Currently, 14 of the division’s 27 full-time faculty have appointments as clinician-scientists or clinician-investigators in the Department of Paediatrics with parallel appointments in the Research Institute. Foci of research include studies in the paediatric leukaemias (Dr. Hans Hitzler), solid tumours (Dr. Meredith Irwin), brain tumors (Drs. Annie Huang, Uri Tabori), retinoblastoma (Dr. Helen Chan), neuroblastoma (Drs. Meredith Irwin, David Kaplan, Sylvain Baruchel), genetics of childhood cancer (Dr. David Malkin), supportive care of children with cancer (Dr. Lillian Sung), adverse effects in survivors of childhood cancer (Drs. Mark Greenberg, Paul Nathan), experimental cancer therapies and angiogenesis (Dr. Sylvain Baruchel), paediatric haemoglobinopathies (Drs. Isaac Odame, Melanie Kirby), paediatric marrow failure syndromes (Dr. Yigal Dror), platelet granule biology (Dr. Walter Kahr), the inherited and acquired bleeding disorders of childhood including the haemophiliaas (Drs. Victor Blanchette, Manuel Carcao) and paediatric thrombosis (Drs. Leo Brando, Suzan Williams). Research in the Division is multidisciplinary, including health care professionals with relevant expertise from a variety of areas (e.g., nursing, pharmacy, psychology, social work). The division is committed to facilitating knowledge exchange through international partnerships with a particular focus on countries lacking the health care resources available in Canada.

The administrative team for the division includes Dr. Victor Blanchette (Division Chief), Dr. Sheila Weltzman (Associate Director, Clinical), Judy Van Clief (Director, Child Health Services) and Lucy Holford (Team Leader, Administrative and Support Services).


HONOURS AND AWARDS


Blanchette V: Dr. Cecil Harris Award, Canadian Haemophilia Society. 2006.

Bouffet E: Claus Wirsig Humanitarian Award, 2007.


Bouffet E: The Richard Rowe Award for Clinical Excellence in Paediatric Medical Care, 2007.

Dror Y: Canadian Institutes of Health Research Clinical Investigator Award, 2006.

Huang A: LIMA International Award for Excellence in Pediatric Brain Tumor Research, Children’s Brain Tumor Foundation, 2006.


Malkin D: Physician Researcher Award for Scientific Accomplishment, Department of Paediatrics, The Hospital for Sick Children, University of Toronto, 2006.

Odame I: Holland Memorial Award for Professional Excellence, 2007.


Tabori U: 3rd Prize, Department of Paediatrics Resident and Fellows Research Day Competition, The Hospital for Sick Children, 2006.

Tabori U: Merit Award, American Society of Clinical Oncology Annual Meeting, 2006.

Weitzman S: Richard Rowe Award for Clinical Excellence in the Department of Paediatrics, 2006.

PUBLICATIONS


Gassas A, Sung L, Saunders EF, Doyle JJ: Comparative outcome of hematopoietic stem cell transplantation for pediatric acute lymphoblastic leukemia following cyclophosphamide and total body irradiation or VP16 and total body irradiation conditioning regimens. Bone Marrow Transplantation 2006: 38: pp 739-743.


BOOKS AND BOOK CHAPTERS


FUNDING


A group wide phase II study of ET-743 in recurrent paediatric sarcoma. Baruchel S. Children’s Oncology Group ($75,000 2007-2010)


A randomized study of IVIG vs IVIg with high dose methylprednisolone in rapidly augmenting platelet counts in childhood ITP. Carcao M, Blanchette V. Bayer (Canada) Incorporated ($175,065 2004-2006)

Acute Megakaryocytic Leukemia in Down syndrome. Hitzler J. National Cancer Institute of Canada ($137,484 2005-2009)

Biochemical and genetic analyses of JPO2, a novel c-Myc oncogene interacting protein. Huang A. National Cancer Institute of Canada ($440,082 2006-2009)

Biochemical and genetic analyses of JPO2, a novel c-Myc oncogene interacting protein (Equipment). Huang A. National Cancer Institute of Canada ($29,479 2006-2007)

Bridging the paediatric and adult health care environments: Promoting successful transitions for survivors of paediatric cancer. Greenberg M, D’Agostino N, Guger S, Staneland P, Lough M, Laperriere N, Urbach S, Nathan P. Princess Margaret Hospital Psychosocial Oncology and Palliative Care Grant ($5,986 2007)


Cancer and chemosensitivity. Irwin MS. Premier’s Research Excellence Award ($150,000 2004-2009)


Characterization of a novel family of Myc protein interactors and their role in medulloblastoma transformation. Huang A. Eli-Lilly/Cancer Care Ontario/Canadian Institutes of Health Research ($675,000 2004-2007)


Clinical Trial Consortium. Pappo A, Bouffet E, Baruchel S. Ontario Cancer Research Network ($1,000,000 2005-2008)


Defining the clinical phenotype of inherited marrow failure syndromes and the risk factors of severe haematological complications and cancer by the Canadian Inherited Marrow Failure Registry (CIMFR). Dror Y, Council of Canadian Paediatric Haematology/Oncology Directors Research Network ($83,000 2006-2007).

Determining the potential for drug interactions between Natural Health Products (NHPs) and chemotherapy in a paediatric oncology population. Baruchel S, Mills E, Guyatt G, Koren G, Seely D, Stempak D, Zelunka E. The Hospital for Sick Children ($130,000 2005-2006).


Educational Grant to review 1) usage patterns of rFVIIa; 2) impact of acquired coagulopathies in leukaemia patients; and 3) inhibitor development in mild haemophilia all at The Hospital for Sick Children. Carcao MD. Novo Nordisk Inc. ($34,750 2006-2007).


Functional analysis of the p53 family members p73 and p63 roles in apoptosis, development and cancer. Irwin MS. Canada Research Chair; Tier II ($500,000 2003-2008).

Genetic epidemiology of osteosarcoma. Spector L, Malkin D, Ross, J, Sklar C, Nagarajan R. National Institutes of Health ($1,000,000 2006-2011).

Genetic variation and risk of infection in children with primary acute myeloid leukaemia. Sung, L. Early Research Award – Ministry of Research and Innovation ($100,000 2007-2011).


Genomic analyses of sPNET. Huang A. b.r.a.i.n.child, The Hospital for Sick Children ($84,300 2009-2007).


Identification of genes involved in marrow failure and malignant myeloid transformation by gene expression analysis of bone marrows from patients with inherited marrow failure syndromes. Dror Y, Beye NE. Anemia Institute of Research and Education ($60,000 2004-2006).


Identification of interstitial germine deletions in children with complex clinical syndromes that include medulloblastoma. Taylor M, Bouffet E. Pediatric Brain Tumour Foundation Institute Award ($100,000 2006-2008).


In vivo anti-tumour and anti-metastatic activity of administration of CXCR4 antagonist and anti-CTLA4 in neuroblastoma. Baruchel S. Pfizer Canada Inc. ($45,000 2007-2008).


Moderate term musculoskeletal outcomes with escalating dose prophylaxis: The Canadian Haemophilia Prophylaxis Follow-Up Study (CHPS-3). Feldman BM, Blanchette VS, Bayer (Canada) Incorporated ($742,500 2006-2009).


Molecular basis of CNS leukaemia. Subversion of developmental and survival programs in leukaenogenesis. Danska J, Hitzler J. Specialized Center of Research; Leukemia Lymphoma Society ($750,000 2004-2009).

Molecular characterization of novel genes involved in sPNET pathogenesis. Lee K and Huang A. The Hospital for Sick Children Research Training Competition Award ($19,000 2006-2007).

Molecular determinants of tumour formation in Li-Fraumeni Syndrome. Malkin D. National Cancer Institute of Canada ($387,000 2004-2007).

Molecular determinants of tumour formation in Li-Fraumeni Syndrome. Malkin D. National Cancer Institute of Canada ($423,000 2007-2010).


C17 Research Network ($95,000 2006-2008)


Role of p53 and VEGF signaling in paediatric sarcomas. Malkin D. SickKids Foundation ($200,000 2002-2007)

Salary support for chairing a group-wide prospective study of otorhinolaryngology patients receiving cisplatin chemotherapy. Sung L. Children’s Oncology Group ($50,000 2005-2007)


The role of SBDS in granulopoiesis. Dror Y. SickKids Foundation ($64,480 2006-2008)

The role of SBDS in promoting cell survival. Dror Y. Canadian Institutes of Health Research ($250,000 2006-2011)

The Role of SBDS in promoting cell survival. Dror Y. SDS Project Incorporated ($30,000 2006-2007)

The role of SBDS in protection from apoptosis. Watanabe K, Dott Y. The Hospital for Sick Children Research Training Competition ($105,000 2004-2007)

The role of VPS33B in platelet alpha granule formation. Kahr WHA. Dean’s Fund New Staff Grant ($10,000 2006)

The role of VPS33B in platelet alpha granule formation. Kahr WHA. The Heart and Stroke Foundation of Ontario ($210,750 2006-2009)

The role of VPS33B in platelet alpha granule formation. Kahr WHA. Canadian Institutes of Health Research Canada ($441,912 2006-2010)


Toronto Angiogenesis Research Centre. Kerbel R, Baruchel S, Burns P, Dumont D, Hemkelman M. Canada Foundation for Innovation 40%, OIT 40%, and partner institutions 20% of total award ($11,630,155 2002-2006)


Tumour volume as measurement of response to chemotherapy in paediatric low grade gliomas. Bartels U, Laughlin S, Mabbott D, Bouffet E. b.r.a.i.n.child, The Hospital for Sick Children ($13,775 2006)

Division Head
Dr. Chaim Roifman

Full-Time
Dr. Adelle Atkinson
Dr. Eyal Grunebaum

Part-Time
Dr. Milton Gold
Dr. David Hummel
Dr. Sasson Lavi
Dr. Maria Triassi

Clinical Fellows
Dr. Maryam Al-Helale
Dr. Dafulah Alahran
Dr. Maitham Hussain
Dr. Fotini Kavadas
Dr. Yew-Hon Lai
Dr. Elana Lavine
Dr. Raz Somech

Clinical Assistant
Dr. Sean Bulley

Immunology Nurse
Brenda Reid, CNS

Allergy Nurses
Kimberley Seaban, CNS
Elisabeth White, CNS

Senior Scientists
Amos Cohen, PhD
Sergio Grinstein

Research Associate
Nigel Sharle, PhD

Research Technologists
Lorand Cimpeon
Tom Grunberger
Yiping Gu

Medical Lab Technologists
Andrea Bates
Harjit Dadi, PhD

Administrative Staff
Lucy Casamatta
Sandra Mendonca
Linda Quintal
Innovative protocols created by members of the division have elevated the profile of the Bone Marrow Transplantation (BMT) program as one of the best in the world for survival of PID patients. In 1990 we made history with implementing matched unrelated donor transplants for PID. Today we demonstrate the impact of our procedures with a recently published study in JAMA. This analysis illustrates an 80% survival rate for SickKids patients utilizing our protocol. In contrast only a 50% survival rate is achieved by a widely used standard protocol exercised in most other countries in Europe and the US. Our protocol has become the preferred modality for treatment of severe combined immunodeficiency when full HLA matched related donor is not available. Our scientific and clinical achievements lead to much recognition. This includes membership by Dr. Roifman in the World Health Organization Scientific Committee for Clinical Immunology, which defines the classification of PIDs. Similarly we contributed to the Manual of Clinical Laboratory Immunology detailing the process of diagnosing a primary immunodeficiency.

Research remains a major focus of activity in the division. Dr. Roifman’s laboratory continues to innovate anti-cancer treatments. Novel compounds were designed against targets in solid tumours which have lead to significant tumor shrinkage in vitro and in vivo. Moreover, since Dr. Roifman’s lab synthesized CR4, another novel compound capable of killing acute lymphocytic leukaemia (ALL) and acute myeloid leukaemia (Blood 2003), it is currently being given to patients with ALL in a phase one clinical study conducted by LymphoSign. The role of Eph receptors in the immune system is gaining recognition with our recent publication in the Journal of Immunology. Meanwhile the discovery of a genetic aberration in the RNA component of RMRP has initiated testing of patients for this defect (JACI 2006).
Dr. Grunebaum and his group have successfully developed and described a novel method to efficiently deliver full length enzymes such as Purine Nucleoside Phosphorylase (PNP) into cells. (*J Clin Invest*, 2006). To further this endeavour his laboratory continues to develop safer methods of inserting genes into bone marrow cells. This will facilitate therapy for diseases such as PNP and Adenosine Deaminase (ADA) deficiency, while improving the substandard outcomes for these patients.

In view of his academic achievements and his multiple contributions to clinical immunology in Canada the CI Society created the Chaim Roifman Scholar Award. Launching in 2007, the recipients of this research grant will study the clinical, cellular and molecular characteristics of genetically determined immunodeficiency diseases, discover improved diagnostic tools for PID, research novel therapeutic approaches for PID or advance education of patients and medical professionals on PIDs.

Education remains an important activity of every member of the division. The tireless dedication of our staff to teaching has recently been fully recognized by the full approval of reviewers from the Royal College of Physicians and Surgeons. Beyond this program we continue to attract more than 25 outstanding candidates every year from across the world. International trainees have the opportunity to participate in a flexible program which can be predominantly research oriented. Our commitment to education goes beyond the training program.

Dr. Roifman organized and chaired the JMF anniversary scientific program and together with Dr. Grunebaum organized the CI Society/Canadian Society of Allergy and Clinical Immunology conference in Edmonton. In addition Dr. Adelle Atkinson was granted the CI Society physician’s awareness award for a third consecutive year. Similarly Brenda Reid was presented with a nursing education grant by the CI Society for her leadership in the teaching of PID care to nurses globally.

From the common cold to cancer, the clinical applications and research potential of immunology converge with almost every aspect of patient care. Thanks to the support of The Donald & Audrey Campbell Chair, the Jeffrey Modell Foundation, the CI Society, Canadian Institute of Health Research, March of Dimes, and the Canadian Centre for Primary Immunodeficiency, children in our division will receive the best care possible, as soon as possible.

**HONOURS AND AWARDS**


Reid B: Nurses Awareness Initiative, Canadian Immunodeficiency Society, 2006.


**PUBLICATIONS**


**BOOK CHAPTERS AND PROCEEDINGS**


**FUNDING**


Canadian Centre for Primary Immunodeficiency. Roifman CM. Canadian Centre for Primary Immunodeficiency ($410,000 2006-2008).

Chair of Immunology. Roifman CM. Donald & Audrey Campbell ($586,000 1998-2006).


Correcting purine nucleoside phosphorylase deficiency by prolonged intracellular enzyme replacement therapy. Grunebaum E. March of Dimes ($390,000 2007-2010).


Fellowship in Immunology. Roifman CM. Canadian Friends of Tel Aviv University ($55,000 2006-2007).

Genetics of Primary Immunodeficiency. Roifman CM. Canadian Immunodeficiency Society ($100,000 2007-2010).


Immunology and Transplantation. Roifman CM. McMillan Binch Barristers and Solicitors ($75,000 2002-2007).


Molecular basis of primary immunodeficiency. Roifman CM. Jeffrey Modell Foundation ($250,000 2006-2011).


Role of Eph receptors in the immune system. Roifman CM. Canadian Institutes of Health Research – 2nd renewal ($350,000 2004-2007).

Targeting and Regulation of Ion Transporters. Grinstein S. Canadian Institutes of Health Research ($804,500 2004-2009).
Infectious Diseases

DIVISIONAL OVERVIEW
The Division of Infectious Diseases is a leader in clinical, educational and research activities locally, nationally and internationally. The division has active inpatient as well as ambulatory consultant services that include teams that focus on general infectious diseases and infectious diseases in immunocompromised hosts, respectively. We are a resource for issues related to infectious disease outbreaks, including new and emerging infectious, infection control and the specialized areas of HIV, congenital infections, management of infectious complications or organ transplantation, and the ever-increasing problem of multi-drug resistant tuberculosis.

Division members have a leading role in national and international epidemiological, clinical, research advisory and related committees (e.g., the Infectious Diseases Society of America, the Canadian Paediatric Society, Health Canada, the American Society for Transplantation, the Government of the Bahamas and the HIV/AIDS program in Russia).

Our research initiatives are structured around themes that include host susceptibility and related factors and innovative antimicrobial and associated therapies. Specific research initiatives include multicentered paediatric HIV studies related to maternal-to-child transmission and studies on new antiretrovirals, vaccine studies and research into the mechanisms of host susceptibility to viral infections. These infections include viral myocarditis, influenza illness, HIV, EBV-related post-transplant lymphoproliferative disease (PTLD) and encephalitis. Multicentered trials related to the diagnosis and prevention of infections in transplant patients are ongoing, as well as participation in national surveillance studies (IMPACT) and national collaborative paediatric studies through the Paediatric Investigators Collaborative Network on Infections in Canada (PICNIC). Our research in infection control includes the clinical and molecular epidemiology of paediatric nosocomial infections. The division has continued to have a leadership role in structuring the approach to the management of major emerging and resurgent infectious disease threats. In this regard, the division has been very actively involved in influenza pandemic planning efforts at SickKids as well as provincially and nationally.

In the area of education, representatives from our division continue to play a key role in activities of the Royal College of Physicians and Surgeons of Canada, and in many areas of undergraduate, graduate and post-graduate and continuing medical education activities.

Faculty members continue to hold editorships, visiting professorships and related academic honours nationally and internationally. In addition, one of our faculty members, Dr. Ford-Jones received the Claus Wirsig Humanitarian Award in 2007.
HONOURS AND AWARDS
Allen U: Visiting Professor and External Examiner, University of West Indies, Jamaica (with site visits to Jamaica, Bahamas, Barbados and Trinidad), 2007.
Allen U: Full Professorship, Departments of Paediatrics and Health Policy Management and Evaluation, University of Toronto, 2007.
Bitnun A: PELRs Resident Teaching Award, 2007.
Ford-Jones L: Convocation Address, George Brown College, School of Early Childhood Education and School of Nursing, 2007.
Read SE: Professor Emeritus, University of Toronto, 2006.
Read SE: Inaugural Professorial Lecture, University of the West Indies, Nassau Campus, 2007.

PUBLICATIONS


Books and Book Chapters


Funding

A 48-week, phase II non-comparative, open-label multicentre study to evaluate the safety, tolerability, pharmacokinetics and antiviral activity of GW-433908/Ritnovir BID in HIV-infected children. Read SE, Bitnun A. GlaxoSmithKline ($40,000 2004-2006)

A multicenter, double-blind, randomized, placebo-controlled, dose-ranging trial evaluating the safety and efficacy of Ri-001 (RespImmune/RSV-IVIG) in respiratory syncytial virus (RSV) infected patients at risk of severe RSV illness. Allen U and ADMA 001 Study Group (Allen U, PI for international study) ADMA Biologics (estimated $500,000 2007 internationally)

A phase II, open-label trial, to investigate pharmacokinetics, safety, tolerability and antiviral activity of TMC 114/rtv b.i.d. in treatment-experienced HIV-1 infected children and adolescents. Bitnun A, Read S. Tibotec ($6,675 2006-2007)

A pilot study of genetic determinants of severe influenza in children. Tran D, Paterson A, Beyene J, Schuh S, Richardson S. Dean’s Fund New Staff Grant, University of Toronto ($10,000 2007-2008)


Defining the role of Stenotrophomonas maltophilia in CF patients. Waters V, Yau Y. Bickell Foundation ($64,976 2007)

Defining the role of Stenotrophomonas maltophilia in CF patients. Waters V, Yau Y. SickKids Summer Research Program ($2,000 2007)

Defining the role of Stenotrophomonas maltophilia in CF patients. Waters V, Yau Y. SickKids Research Institute ($15,000 2006-2007)


Mitochondrial DNA Damage in Infants exposed to HIV Antiretroviral Drugs in Utero. Cote H, Forbes J, Money D, Burdge D, Harrigan R, Bitnun A, Read S. Canadian Institutes of Health Research ($267,915 2006-2008)

Multidose, open label randomized safety and pharmacokinetic study of Tipranvir in combination with low-dose Ritrovir in HIV infected paediatric patients. Read S, Bitnun A, Boehringer Ingelheim ($30,000 2004-2006)

Night float: A qualitative evaluation of residents’ perceptions. Hall S, Ladhani M, Wadhwa A. McMaster Children’s Hospital Paediatric Residency Research Grant ($2,380 July 2006)

Omega 3 fatty acid supplementation on hypertriglyceridermia in HIV-infected children taking Highly Active Antiretroviral Therapy (HAART): A randomized cross-over study. Read S, Bitnun A, Brophy J. Physicians’ Services Incorporated Foundation ($32,000 2007)


Retrospective study of caspofungin in organ transplant recipients. Allen U. Merck Canada ($21,000 2006-2007)


The Coxsackie-Adenovirus Receptor in heart infection and heart failure. Opavsky A. Heart and Stroke Foundation of Ontario ($166,500 2007-2010)


Tuberculosis immunity in childhood. Lewishon D, Kitai I, Loeffler A. Oregon Health Sciences University/National Institutes of Health ($11,000 2005-2008)

What makes an excellent clinician in an Academic Health Sciences Centre? Mahant S, Wadhwa A. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($8,300 2007)
Division Head
Dr. Keith Tanswell

SICKKIDS
Full-Time
Dr. Jacques Belik
Dr. Jonathan Hellmann
Dr. Andrew James

Dr. Kyong-Soon Lee
Dr. Patrick McNamara
Dr. Aideen Moore
Dr. Hilary Whyte

Part-Time
Dr. Rosemary Moodie

Cross Appointees
Dr. Bonnie Stevens

Adjunct
Dr. Xiaoping Luo

Honorary Faculty
Dr. Max Perlman
Dr. Paul Swyer

MOUNT SINAI HOSPITAL
Dr. Yenge Diambomba
Dr. Ann Jefferies
Dr. Edmond Kelly
Dr. Karel O’Brien
Dr. Arne Ohlsson
Dr. Prakesh Shah
Dr. Vibhuti Shah

ST. MICHAEL’S HOSPITAL
Dr. Tony Barozzino
Dr. Douglas Campbell
Dr. Michael Sgro

SUNNYBROOK HEALTH SCIENCES CENTRE
Full-Time
Dr. Elizabeth Asztalos
Dr. Michael Dunn
Dr. Robert Jankov
Dr. Andrew Shennan

Dr. Shahon Unger
Dr. Kin Fan Young Tai
DIVISIONAL OVERVIEW

The Division of Neonatology welcomes Dr. Adrian Ziino to the Faculty at the Sunnybrook Health Sciences Centre (Women’s College Hospital site).

The three level III NICUs at The Hospital for Sick Children, Mount Sinai Hospital and at the Women’s College Hospital site continue to suffer from a shortage of sufficient level III NICU beds to adequately meet the maternal and neonatal needs of our catchment area, which has resulted in regrettable deferrals of patients out of region, province and country. The Ministry of Health and Long-Term Care commissioned a Neonatology Task Force, with province-wide representation including representatives from the three Toronto NICUs, to address the issue of current level III NICU bed requirements across the province, and the predicted increase in requirements over the next 10-15 years. The report has been delivered to the Ministry and a response is awaited.

The division’s Neonatal-Perinatal Fellowship Training Programme was reviewed this year, and received full approval. Dr. Martin Skidmore, the Programme Director, is to be congratulated on his dedication and effort. We continue to train the largest number of subspecialty trainees in Neonatology of any centre in Canada.

The division continues to be well supported by major funding agencies for its various foci at the three sites, including lung biology, epidemiology, outcomes-based research and clinical trials.
HONOURS AND AWARDS
McNamara PJ: Teacher of the Year Award, Division of Neonatology, June 2007.
Tanswell AK: Women’s Auxiliary Chair in Neonatology, 2007.

PUBLICATIONS
Aher S, Ohlsson A: Late administration of erythropoietin for preventing red blood cell transfusion in preterm and/or low birth weight infants. The Cochrane Database of Systematic Reviews 2006: 3: CD004868.
Aher SM, Ohlsson A: Early versus late erythropoietin for preventing red blood cell transfusion in preterm and/or low birth weight infants. The Cochrane Database of Systematic Reviews 2006: Issue 3: CD004865.


**BOOKS AND BOOK CHAPTERS**


Predicting neurobehavioural outcome in preterm infants. Taylor M, Whyte HE, Moore AM. Canadian Institutes of Health Research ($929,999 2005-2008)
DIVISIONAL OVERVIEW

The Nephrology Division in the past year has been very ably led by Drs. Rosenblum and Langlois, while Dr. Geary was on sabbatical leave. The leadership change has not resulted in any change in the divisional activity, and clinical care and basic research continue as beacons of our success. There is also a commitment to increase clinical research productivity with specific focus on Nephrotic Syndrome in Children, Prevention of the Complications of Chronic Kidney Disease in Children, and Management of Congenital Renal Malformations.

The training program was superbly led by Dr. Harvey, and culminated in successful accreditation for another seven years.

HONOURS AND AWARDS

Licht C: Associate Scientist, Cell Biology Program, Research Institute, The Hospital for Sick Children. The Interface of the Complement and the Coagulation System in Patients with aHUS, 2006.

Rosenblum ND: Canada Research Chair in Developmental Nephrology (Tier 1), Canadian Institutes of Health Research, 2005-2012.


PUBLICATIONS


FUNDING
Canada Research Chair in Developmental Nephrology, Tier I. Rosenblum ND. Canada Research Chairs Program ($200,000/year 2005-2012)

Canadian Child Health Clinician-Scientist Program Rosenblum ND. Canadian Institutes of Health Research ($300,000/year 2002-2008)

Canadian Paediatric Clinician Scientist Program. Rosenblum ND. SickKids Foundation ($300,000/year 2002-2008)

Canadian Paediatric Clinician Scientist Program. Rosenblum ND. B.C. Research Institute for Children’s and Women’s Health ($150,000/year 2002-2008)

Canadian Paediatric Clinician Scientist Program. Rosenblum ND. B.C. Children’s Hospital Foundation ($150,000/year 2002-2008)


Control of kidney morphogenesis in the normal and dysplastic kidney. Rosenblum ND. Canadian Institutes of Health Research ($147,000/year 2003-2008)

Control of kidney morphogenesis by sonic hedgehog and its signaling effectors. Rosenblum ND. Canadian Institutes of Health Research ($134,419/year 2006-2009)


Kids Science. Robinson L. Ministry of Research and Innovation, Youth Science and Technology Outreach Program ($150,000 2006-2009)

Molecular mechanisms that control branching morphogenesis in the normal and dysplastic kidney. Rosenblum ND. Canadian Institutes of Health Research ($148,700/year 2003-2008)

Role of the Notch pathway in kidney development. Piscione TD. SickKids Research Institute ($101,500 2006-2008)

Role of the Notch pathway in kidney development. Piscione TD. Department of Paediatrics, The Hospital for Sick Children ($37,500 July 2006)


The role of Notch1 in kidney development. Piscione TD. The Kidney Foundation of Canada ($149,610 2004-2007)

The role of slit/robo signaling in renal Inflammation. Robinson L. Canada Research Chairs, Tier 2 ($500,000 2004-2009)

The role of slit/robo signaling pathways in kidney inflammation. Robinson L. Early Researcher Award, Government of Ontario ($100,000 2006-2008)
Division Head
Dr. O. Carter Snead III

Full-Time
Dr. Rand Askalan
Dr. Brenda Banwell
Dr. Gabrielle deVeber
Dr. Elizabeth Donner
Dr. Cecil Hahn
Dr. Daune MacGregor
Dr. Berge Minassian
Dr. Teesta Soman
Dr. Ingrid Tein
Dr. Jiri Vajsar
Dr. Shelly Weiss

Part-Time
Dr. David Berbrayer
Dr. Joseph Bruni
Dr. Pamela Cooper
Dr. Jonathan Gladstone
Dr. Jeffrey Kobayashi
Dr. Betty Koo
Dr. Wayne Langburt
Dr. Shanna Lindsay
Dr. William Logan
Dr. John Lovering
Dr. Gilbert Miller
Dr. Peter Rumney

Honorary
Dr. Douglas McGreal
Dr. E. Gordon Murphy
Dr. Diann Superina-Bell

Scientific Staff
Dr. Miguel Cortez
Dr. Maureen Lovett

Dr. James MacFarlane
Dr. Hiroshi Otsuho
Dr. Elizabeth Pang
Dr. Mary Lou Smith
Dr. Margot Taylor
Dr. Jose Luis Perez Velazquez
DIVISIONAL OVERVIEW
The major foci of the clinical activities of the Division of Neurology are epilepsy, stroke, headache, neurometabolic disease, neuromuscular disease, sleep disorders, movement disorders, multiple sclerosis, functional neuroimaging and neurointensive care.

The Division of Neurology has a Royal College accredited training program in Child Neurology as well as postdoctoral training programs in epilepsy and stroke. In addition, there are a number of graduate students and postdoctoral fellows in clinical neurophysiology and molecular and cellular neurobiology. The research foci of the Division of Neurology is epilepsy (both clinical and basic research), magnetoencephalography, stroke, dyslexia, burden of disease and quality of life, muscular dystrophy, multiple sclerosis, fatty acid oxidation disorders, and molecular and cellular neurobiology.
HONOURS AND AWARDS
Banwell B: Canada's Top 40 Under 40 Recipient, 2006.
Banwell B: American Academy of Neurology Leadership Development Program (Selected), 2006.
Banwell B: Women Against Multiple Sclerosis Award – Multiple Sclerosis Society of Canada, 2007.
MacGregor DL: 7 Year Volunteer Long Service Award, Bloorview Children's Hospital Foundation, 2007.
Minassian B: Canada Research Chair in Paediatric Neurogenetics, 2006.
Minassian B: Dreifuss-Penny Epilepsy Award, American Academy of Neurology, 2007.
Tein I: Elected Member, International Child Neurology Association Executive Board.
Tein I: Appointed Chair, Scientific Program Committee, Xth International Child Neurology Congress, Cairo, Egypt, 2010.

PUBLICATIONS


BOOKS AND BOOK CHAPTERS

Gladstone JP, Brandes JL. Diagnosis and classification of primary headache disorders. In: Standards of Care for Headache Diagnosis and Treatment (Freitag FG, Cady RK, eds). National Headache Foundation.


FUNDING


Atypical absence epilepsy: GABABR-mediated mechanisms. Snead OC III. Canadian Institutes of Health Research ($705,000 2003-2008)

Carnitine-responsive cardiomyopathy & the different-affinity carnitine transporters. Tein I. The Heart and Stroke Foundation of Ontario ($267,144 2004-2008)


Characterization of factors and mechanisms that explain the association between physical activity and lung health in cystic fibrosis: Does muscle function play a role? Ratjen F, Coates A, Tein I. Canadian Cystic Fibrosis Foundation ($158,000 2006-2008)

Childhood stroke project: Ontario needs assessment for childhood stroke. deVeber G. Ontario Ministry of Health and Long-Term Care ($185,000 2005-2007)


Health-related quality of life in children with epilepsy: the first two years after diagnosis through parents' eyes. Smith ML, Nixon-Schweinsky K, Camfield C, Wiebe S, Zou G, Levin S. Canadian Institutes of Health Research ($393,692 2003-08)

Iatrogenic Effects of Stimulant medication on sleep in children with ADHD. Corkum P, Weiss S. Canadian Institutes of Health Research ($295,000 2006)
ICES paediatric linkage project. deVeber G, To T, Zak M. Ontario Ministry of Health and Long-Term Care, Integrated Policy and Planning Research Unit ($30,000 2006-2007)

Identification of genetic causes of paediatric neurological conditions and using these to uncover the cellular pathways involved and to determine the ways in which they are disturbed. Minassian BA. Canada Research Chairs Program ($478,585 2006-2011)


MEB Diseases. Vajsar J. SickKids Foundation ($37,000 2006-2007)

Molecular basis of Lafora bodies (starch formation in the brain ) and Lofora’s progressive myoclonus epilepsy. Minassian BA, Ackerley CA, Scherer SW, Lohi H. Canadian Institutes of Health Research ($1,146,830 2006-2011)

Multimodal neuroimaging of frontal lobe cognitive function in children. Taylor MJ, Donner EW, Pang EW. Canadian Institutes of Health Research ($466,335 2006-2011)


Multi-site pediatric network for fMRI mapping in children. Gaillard WD, Donner EJ. American Epilepsy Society ($78,000 2005-2007)

Murine knockout model of 4-hydroxybutyric aciduria, Snead OC III. National Institutes of Health ($587,500 USD 2008-2011)

Murine succinate semialdehyde Dehydrogenase deficiency: An epileptic disorder with elevated CNS GABA. Snead OC. Epilepsy Foundation/Partnership for Pediatric Epilepsy Research ($100,000 2006-2006)


Neuroimaging. Snead OC III. Ontario Research Development Challenge Fund ($800,000 2001-2006)

Neuromagnetic imaging methods for realistic models of brain activity. Cheyne D, Otsubo H, Taylor MJ. Canadian Institutes of Health Research ($114,806 2006)


Restracom training fellowship, post-doctoral fellowship stipend for Greg Wells PhD. Tein I, Coates A. SickKids Foundation ($73,000 2005-2007)


Towards the correction of Rett-like behaviour in MeCP2-deficient mice by exogenous gene delivery. Snead OC III. Canadian Institutes of Health Research ($585,685 2004-2009)


Volunteer scholarships for Greg Wells PhD. Tein I, Coates A. SickKids Foundation ($73,000 2005-2007)


Towards the practice of paediatric movement disorders amongst paediatricians. Soman T, MacGregor D. SickKids Foundation ($500 2006-2008)

The role of carnitine transporters in sperm motility and maturation and male fertility. Tein I. Physicians’ Services Incorporated Foundation ($186,000 2003-2006)

The Ts65Dn mice model. Cortez MA. SickKids Foundation, Down Syndrome Fund ($5,000 2005-2007)


Division Head
Dr. William Mounstephen

Full-Time
Dr. Susanna Benseler
Dr. Kathy Boutis
Dr. Kevin Chan
Dr. Stephen Freedman
Dr. Ran Goldman
Dr. Shauna Jain
Dr. Anna Jarvis
Dr. Kelly Keogh
Dr. Luba Komar
Dr. Amina Lalani
Dr. Angelo Mikrogianakis
Dr. Bruce Minnes
Dr. Jonathan Pirie
Dr. Savithiri Ratsnapalan
Dr. Susan Schweeiss
Dr. Suzanne Schuh
Dr. Dennis Scolnik
Dr. Jennifer Thull-Freedman

Part-Time
Dr. Sherry Baine
Dr. Carolyn Colpin
Dr. Joseph Copeland
Dr. Anh Do
Dr. Michael Falk
Dr. Janine Flanagan
Dr. John Freedman

Dr. Claudio Fregonas
Dr. Sabine George
Dr. Cara Gilman
Dr. Peter Glazer
Dr. Donna Goldenberg
Dr. Massoud Grouhi
Dr. Shuja Hafiz
Dr. Mark Handley-Derry

Dr. Leah Harrington
Dr. Nicole Inch
Dr. Ronik Kanani
Dr. Eddy Lau
Dr. Yen Le
Dr. Patricia Linders
Dr. Trent Mizzi
Dr. Sanjay Mehta
DIVISIONAL OVERVIEW
The Emergency Department (ED) at The Hospital for Sick Children provides acute care to children who are ill or who have been injured. We are both the primary care centre for children in Toronto, plus the tertiary referral centre for the Greater Toronto Area (GTA), in addition to being the designated Paediatric Trauma Centre for the GTA. The division currently has 19 full-time staff, the majority of whom are recertified in paediatrics and paediatric emergency medicine, plus a cadre of part-time paediatricians. Over the last year we have introduced a number of innovative clinical processes such as two-tier triage, an urgent care clinic and soon will be introducing a remodelling of our team system.

All of these will allow us to provide more efficient and effective care to our patients. In addition we look forward to the redevelopment of the physical plant. This redevelopment will ensure that the ED at SickKids remains a leader in paediatric emergency care.

The division has an active three-year academic fellowship program. The Royal College of Physicians and Surgeons has fully accredited our fellowship program. In addition, we have a number of clinical departmental fellows from around the world spending a year with us further developing their paediatric emergency medicine knowledge and skills. The division continues to run Paediatric Life Support Courses (PALS and APLS). We also have a well-developed weekly half-day of educational activities for trainees and all Health care providers in the Emergency Department. In the fall the division will present the fourth annual Paediatric Emergency Medicine Update which in the past three years has been an overwhelming success.

Research in the division remains clinically focused, covering a wide range of topics from respiratory disease acute care management, orthopaedic injuries, pain and sedation, to drug errors. Research done within the division continues to be presented nationally and internationally with publications in peer-reviewed journals. Overall a substantial increase in clinical research activities has resulted which has set us on par with the other North American leaders in Paediatric Emergency Medicine.
HONOURS AND AWARDS
Benseler S: Clinical Recognition Award, Division of Paediatric Emergency Medicine, The Hospital for Sick Children, 2007.
Boutis K: Runner up for Best Researcher in The Hospital for Sick Children Emergency Department, 2007.
Freedman S: Research Recognition Award-MD, Division of Paediatric Emergency Medicine, The Hospital for Sick Children, 2006.
Jarvis A: Dr. JC Fallis Clinical Teaching Award, Division of Emergency Medicine, The Hospital for Sick Children, 2007.
Lalani A: Continuing Education Award for Excellence in Course Coordination, Paediatric Emergency Medicine Conference, Department of Paediatrics, The Hospital for Sick Children, 2006.
Mehta S: PAIRO Award for Clinical Excellence in Course Coordination, Paediatrics, The Hospital for Sick Children, 2006.
Mehta S: James C. Fallis Teaching Award for Excellence in Course Coordination, Faculty of Medicine, University of Toronto, 2006.
Mikrogianakis A: Anna Jarvis Award for Continuing Medical Education, University of Toronto, 2006.
Pirie J: James C. Fallis Teaching Award, Runner-Up, Division of Paediatric Emergency Medicine, The Hospital for Sick Children, 2007.
Ratnapalan S: David Fear Fellowship Award for Continuing Medical Education, University of Toronto, 2006.
Schneeweiss S: Department of Paediatrics Continuing Education Award, The Hospital for Sick Children, 2007.
Schneeweiss S: Nominee for Colin Woolf Award for Excellence in Course Coordination, 2006.
Schuh S: Research Recognition Award-MD, Division of Paediatric Emergency Medicine, The Hospital for Sick Children, 2007.
Schuh S: Physician Research Award for Career Excellence Nominee, University of Toronto, Faculty of Medicine, 2007.
Scolnik D: Runner up for Clinical Recognition Award in Recognition of Excellence in Outstanding Effort and Contribution to the Emergency Department, 2007.
Scolnik D: Runner up for Clinical Teaching Award – Staff Physician, Division of Paediatric Emergency Medicine, 2007.

PUBLICATIONS


Books and Book Chapters


FUNDING

Emergency Department Rapid Intravenous Rehydration (RIVR) for pediatric gastroenteritis: A randomized controlled trial. Freedman S, Parkin P, Willan A, Schuh S. Physicians’ Services Incorporated Foundation ($165,000 2006-2008)


Medication error reduction initiative in the emergency department. Ratnapalan S, Jarvis A. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($5,837 2006-2007)


Workshop on NGO/academia collaboration in global child health. Chan K. Trudeau Foundation ($16,300, 2007)
DIVISIONAL OVERVIEW

The 2006-07 academic year was another excellent year for the Division of Paediatric Medicine. In January, we welcomed two new faculty members, Dr. Hosanna Au, a graduate of the University of Toronto and the paediatric residency program at SickKids and a member of the Section of SCAN, after an 18 month locum. In addition to her SCAN responsibilities, part of her time will be spent attending on the inpatient paediatric medicine wards in addition to her activities in medical education. We also welcomed Dr. Charlotte Moore who obtained her MD at Johns Hopkins and did her paediatric residency at Harvard. She has a strong interest in health policy and has joined our division in a major part-time role with the rest of her time being spent with the Ontario Ministry of Health. She will attend on the inpatient wards during her clinical time. We look forward to productive and exciting careers for both of them.

It was with tremendous sadness that we mourned the passing of Dr. Norman Saunders in March 2007 after a courageous and dignified fight against illness. Dr. Saunders set a very high standard for paediatricians at SickKids and even in the last years of his illness continued to make a tremendous contribution to the hospital to which he was so loyal and dedicated over the course of his thirty year career. Thanks to his efforts together with a group of his friends and former patients, a Complex Care Initiative of his thirty year career. Thanks to his efforts together with a group of his friends and former patients, a Complex Care Initiative was launched through the SickKids Foundation and has raised over 1.3 million dollars to go toward academic study and research into improving the care delivered to the complex paediatric patient. He also co-edited two books for parents, on behalf of the Division of Paediatric Medicine, which were published in the final year of his outstanding career.

We also said farewell to Dr. Marcellina Mian after 25 years at SickKids and wish her well in her new leadership role in paediatric medical education in Qatar. Marcie has been a pioneer in the field of child abuse, is internationally respected as an expert in the area, and led the International Child Abuse Society as president a few years ago. She has led the hospital’s undergraduate education program admirably. She will be missed and leaves big shoes to fill! Congratulations to Dr. Stacey Bernstein who was appointed as the Director of Undergraduate Medical Education for the hospital and has taken over from Dr. Mian in this capacity.

On the clinical side, the Paediatric Medicine Inpatient Units remained extremely busy with responsibility for over 20 percent of the hospital inpatient population. There were a number of new quality initiatives piloted on the Paediatric Medicine wards including the MCAP utilization tool and medication reconciliation process, and a number of innovative restructuring projects aimed at improving efficiencies. The first Paediatric Medicine 7th floor inpatient Retreat was held for all members of the team and it was highly successful. Dr. Sanjay Mahant and Sherri Adams (nurse practitioner) both won awards for their clinical contribution in palliative care.

The Division of Paediatric Medicine continues to contribute much to the department’s educational enterprise at both the undergraduate and postgraduate levels through the full-time faculty as well as the tremendous efforts of the community paediatricians. These contributions are not only impressive quantitatively in terms of hours spent in medical education, but also qualitatively in terms of leadership, teaching awards and evaluations.

Congratulations to Dr. Susan Tallett who has been appointed as the first chief of the hospital’s new Institute of Learning. Dr. Bernstein has taken over as Director, Undergraduate Medical Education. It is notable that of the 22 rotations through which the paediatric residents rotate in their three core years of training, the first and second highest overall ratings were for the rotations on the Paediatric Medicine inpatient ward service for first and third year residents.

The Harry Bain Award for excellence in clinical teaching was awarded to Dr. Michael Weinstein (Director, Inpatient Paediatric Medicine) and the Subspecialty Teaching Award was awarded to Dr. Elena Pope (Director, Section of Paediatric Dermatology).

The Paediatric Medicine fellowship program continues to grow and currently there are 10 Canadian and international fellows participating in the various streams of fellowship including Academic General Paediatrics, Dermatology, and Hospitalist fellowships. A number are pursuing Masters degrees in medical education, clinical epidemiology and bioethics.
On the research side, it was a highly successful year for the division with 25 abstracts being presented at the annual international Pediatric Academic Society meeting in May as well as the national Canadian Paediatric Society meeting in June. In addition, Dr. Jonathan Maguire who will be an academic general paediatric fellow in 2007 was selected to represent the residency program at the annual paediatric residents competition in Winnipeg (supervisor Dr. Patricia Parkin) and Dr. Elizabeth Berger won a research award in the core paediatric resident category of the department’s Annual Research Day (supervisor Dr. Jeremy Friedman). Research Rounds occur regularly every Thursday afternoon at lunchtime under the auspices of the Paediatric Outcomes Research Team (PORT) and continue to gain in popularity with a wide range of research being presented and reviewed. A Divisional Journal Club co-ordinated by the fellows and staff was also reinstituted this year and has been well attended and enjoyed by all. We also welcomed Magda Mekky as the PORT Clinical Research Project Co-ordinator (Epidemiology) in January 2007. Details of the many peer reviewed publications and research grants from this academic year are listed in the next few pages.

HONOURS AND AWARDS
Campbell D: Postgraduate Community Paediatric Teaching Award (Postgraduate Teaching Award), Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.


Garfield H: Lionel Weinstein Clerkship Teaching Award (Undergraduate Teaching Award), Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.

Mahant S: Palliative and Bereavement Care Service Award, The Hospital for Sick Children, Toronto, Canada, 2006.

Mahant S: Royal College of Physicians and Surgeons of Canada: Clinical Traineeship Grant, 2007.

Pope E: Department of Paediatrics’ Postgraduate Subspecialty Teaching Award, Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.

Saunders N: Marvin Gerstein Award (Postgraduate Teaching Award), Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.

Simone A: Undergraduate Community Paediatric Teaching Award (Undergraduate Teaching Award), Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.

Tallett S: The Charles Mickles Fellowship Award. 2007.

Weinstein Michael: Harry Bain Award (Postgraduate Teaching Award), Department of Paediatrics, The Hospital for Sick Children, Toronto, Ontario, Canada, 2007.


On the advocacy side, the paediatric residents under the supervision of Drs. Catherine Birken and Hosanna Au have been very successful in working together with school children to produce the Kids on Kids Health magazine which has been presented in a number of forums including the national CPS meeting.

A new book co-edited by Drs. Jeremy Friedman and Norman Saunders, with contributions from six of the Paediatric Medicine faculty, entitled Canada’s Baby Care Book, was published by Robert Rose in May is already a best seller in Canada. There are plans to release it internationally in the upcoming year. ‘Caring for Kids. The Complete Canadian Guide to Child Health’ published by Key Porter by the same editors, with contributions from 13 Paediatric Medicine faculty has become a bestseller in Canada since its publication in March 2006, and is now selling internationally as well.

PUBLICATIONS


Friedman JN: The case for...writing case reports. Paediatrics and Child Health 2006: 11: pp 343-344.


BOOKS AND BOOK CHAPTERS


FUNDING


A randomized, prospective, double-blind placebo-controlled clinical study assessing the efficacy of topical Tacrolimus 0.1% ointment and topical Clobetasol propionate 0.05% ointment in the treatment of vitiligo. Ho N, Krachfik BR, Pope E, Greenberg S, Webster C, Weinstein M. Fujisawa Canada Inc. ($62,425 2004-2007)

Access to care and health outcomes in Canadian children. Guttmann A. Canadian Institutes of Health Research New Investigator Salary Award ($250,000 2006-2011)

An office based intervention to improve media use in preschool children: A randomized controlled trial. Birken CS, Beck CE, McCrindle B, Parkin PC. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($9,975 2006-2007)

Assessing Ontario’s Universal Influenza Immunization Program. Manuel D, Guttmann A, Kwong J, Pourbohloul B, Moran MK. Canadian Institutes of Health Research ($1,000,000 2007-2010)

Complementary medicine in Canadian paediatric patients with atopic dermatitis: A cross sectional survey. Weinstein M, Pope E, Redlick F. Canadian Dermatology Foundation ($10,000 2006-2008)

Does the administration of intravenous ketorolac alter the kinetics of intravenous morphine in children with vaso-occlusive sickle cell crisis? Scolnik D, Valani R, Friedman JN. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($10,000 2004-2006)


Genetic analysis of PHACE(S) Association. An International registry based out of the University of California, San Francisco. Frieden II, Pope E, Siegel D. University of Southern California at San Francisco ($20,000 2006-2008)

Guidelines for the ethical use of children in medical education. Hilliard RI. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($1,200 2006-2007)


Knowledge and attitudes of paediatric residents towards disclosure of adverse events. Matlow A, Coffey T, Tallett S. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($5,000 2007-2008)


Open label extension study to determine safety of etanercept in paediatric subjects with plaque psoriasis. Pope E, Weinstein M. Amgen Inc. ($43,000 2006-2008)

Palindromy at the NF1 locus as a risk factor for NF1-associated malignancy. Lewis S, Parkin P. SickKids Research Institute New Ideas Grant Competition ($45,023 2006-2009)

Paediatric outcomes research. Parkin PC, Macarthur C. SickKids Foundation ($1,000,000 2007-2012)

Paediatric surgeries in Ontario. Guttmann A, Stukel T. Ontario Ministry of Health and Long-Term Care. ($180,000 2007)


Placebo-controlled multicentre study with etanercept to determine safety and efficacy in paediatric subjects with plaque psoriasis. Pope E, Weinstein M. Amgen Inc. ($42,000 2005-2006)

Practices and beliefs of nurses and paediatricians in level II nurseries toward newborn breastfeeding supplementation methods. Feldman M, Tamim H. York University Faculty of Arts Internal Research Grant ($5,000 2006-2007)


TKT024EXT: An open-label extension of study TKT024 evaluating the long-term safety and clinical outcomes in MPS II patients receiving Idurotate-2-Sulfatase enzyme replacement therapy. Clarke JTR, Friedman J. Transkaryotic Therapies Inc. ($111,497 2005-2007)

Treatment choices for children with typical acute immune thrombocytopenic purpura: development of a decision aid. Beck C, Birken CS, Blanchette V, Boydell K, Llewellyn-Thomas H, Parkin PC. Dean’s Fund New Staff Competition, Spring 2006, Faculty of Medicine, University of Toronto ($10,000 2006-2011)

What makes an excellent clinician in an academic health science centre? Mahant S, Wadhwa A. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($8,300 2006)
Respiratory Medicine

DIVISIONAL OVERVIEW

The Respiratory Medicine Program provides comprehensive care for the full range of paediatric pulmonary diseases such as asthma, cystic fibrosis, interstitial lung diseases, primary ciliary dyskinesia and chronic respiratory insufficiency in infancy due to prematurity and/or congenital malformations. We also provide consultation support for the Hospital in all areas of paediatric respiratory disease. We maintain an ongoing follow-up program for children technologically dependent with chronic respiratory insufficiency. The Sleep Laboratory (the only dedicated paediatric sleep laboratory in Ontario) provides diagnostic services and follow-up care in children with sleep apnea, sleep related respiratory insufficiency. It is affiliated with Division of Neurology in caring for children with complex neuro-behavioural sleep disorders. The Division also provides a flexible bronchoscopy program in the diagnosis of anatomical abnormalities, infection in the immunocompromised host and children with interstitial lung disease. Over the last years we have broadened our diagnostic spectrum of tests to assess diseases with airway inflammation including test of nitric oxide in exhaled air. The addition of an infant pulmonary function laboratory has broadened the potential for diagnostic tools to objectively assess lung disease in infants and young children and is now open for the assessment of both patients in the hospital and for outpatients. It is currently the only laboratory in the country offering this service. We are currently in the process to close the gap by developing a pulmonary function test for preschool children as well.

As part of the Toronto Lung Transplantation Program the Division provides pre- and post transplantation care for children with end-stage lung disease. The lung transplant program continues to be the largest paediatric lung transplant program in the country.

The training program has independent Royal College of Physicians and Surgeons of Canada accreditation and is the largest training program for paediatric respiratory medicine in the country. It provides the full range of training that is required for Board Certification in Pediatric Pulmonology in the United States. As well as offering training to Royal College of Physicians and Surgeons of Canada eligible candidates, it also trains physicians from abroad.

Dr. Indra Narang, a Paediatric Pulmonologist has joined our team from Great Ormond Street in London after an interim training period at the Children’s Hospital in Philadelphia and has taken over the care of patients with sleep related respiratory disorders, which also forms the focus of her future research. Dr. MacLusky, who has been involved in many clinical activities over the last two decades, has left our division to become the Head of Respiratory Medicine at the Children’s Hospital in Ottawa. Dr. Hugh O’Brodbovich, who has served as the Chair of Paediatrics for 10 years and who was on sabbatical this year, has accepted a position as Chair of Pediatrics at the Children’s Hospital in Stanford. Members of the Division are actively involved in an international program to develop a new classification for interstitial lung diseases (Dr. Dell), a NIH sponsored study on primary ciliary dyskinesia (Dr. Dell), Dr. Sharon Dell, in collaboration with researchers from the University of California in Berkeley, is leading a study entitled T-CHEQ or Toronto Child Health Evaluation Questionnaire which is examining the association between asthma and traffic-related air pollution including parents of over 6,000 Grade 1 and 2 schools in Toronto. Dr. Solomon has received an educational development grant from the Centre of Faculty Development to study the cognitive-behavioural aspects of teaching communication. The division is also involved in the planning of an AllerGen sponsored birth cohort study to elucidate the factors important for the development of asthma in early childhood (Dr. Subbarao).

In addition, the CF team is involved in a number of clinical studies including a multi-centre study on azithromycin in Pseudomonas negative CF patients that will be the first collaborative study funded by the US CF foundation conducted in Canada and the US (Dr. Ratjen), studies to elucidate the role of arginase and NO deficiency in CF lung disease sponsored by CIHR and the Canadian CF foundation (Dr. Grasemann) and a study on the role of aspergillus infection in CF (Dr. Ratjen in collaboration with Dr. Shawn Aaron in Ottawa) that received initial funding from both the Canadian CF foundation and Physician Service Incorporated and which is planned to involve multiple sites in Canada and Australia. The division is also involved in developing new outcomes measures to assess improvement in CF lung disease within the BREATHE program, a study to develop CFTR corrector therapy the Canadian CF Foundation (Dr. Ratjen). The division also continues to be involved in the NIH Childhood Asthma Management Program Continuation Study (Dr. Subbarao, Dr. Grasemann). Other studies are ongoing and supported by research grants as well as generous support by individuals such as the Irwin family.

The major research foci include clinical and epidemiological studies in patients with asthma and cystic fibrosis, translational studies on airway inflammation in cystic fibrosis, basic science studies on molecular biology of electrolyte transport in the lung epithelium as well as on novel genes in lung development, studies in aerosol therapy and exercise physiology. For a more complete description of our research interests, please visit our website.

Division Head  Dr. Felix Ratjen
Full-Time  Dr. Allan L. Coates  Dr. Sharon Dell  Dr. Hartmut Grasemann  Dr. Indra Narang
Part-Time  Dr. Hugh O’Brodbovich  Dr. Melinda Solomon  Dr. Padmaja Subbarao  Dr. Neil B. Sweezy
Cross-Appointees  Dr. T. Douglas Bradley  Dr. Theodore Marras
Honorary  Dr. Gregory Downey  Dr. Dennis Gurwitz
Adjunct Scientist  Dr. Hiran Selvadurai
Fellows  Dr. Dimas Mateos-Coral  Dr. Harutai Kamalaporn  Dr. Mustafa Osman
Subspecialty Residents  Dr. Suhail Al-Saleh  Dr. Rakesh Amin  Dr. Rakesh Bhattacharjee  Dr. Taehee Hsieh  Dr. Dhenuka Radhakrishnan
Administrative Staff  Tara Beattie  Jennifer Chay  Rea Magi  Victoria Snell

Dr. Indra Narang in the sleep lab


Books and Book Chapters


Funding

A multistage population-based study to determine the association between traffic-related air pollution and childhood asthma. S Dell, D Stieb, N Gilbert, M Jerrett, D Miller, T To. Health Canada ($562,273 2005-2007)

Are exhaled nitric oxide levels different in paediatric sickle cell disease patients with asthma? A cross-sectional study. Grasemann H, Kirby-Allen M, Subbarao P, Liberman L. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($10,000 2006-2007)


Characterization of factors and mechanisms affecting physical activity, muscular function and lung health in Cystic Fibrosis. Coates AL, Ratjen R. Canadian Cystic Fibrosis Foundation ($180,000 2006-2008)

Diagnostic utility of induced sputum using hypertonic saline to evaluate airway inflammation and lung health in Cystic Fibrosis. Coates AL, Ratjen R. Canadian Cystic Fibrosis Foundation ($180,000 2006-2008)


Clinical and Genomic Approaches to Chronic Lung Disease. Grasemann G. Canadian Institutes of Health Research ($10,000 2006)


Glucocorticoid receptor and glucocorticoid-responsive genes in developing lung. Sweezey N, Kaplan F. Canadian Institutes of Health Research ($563,500 2004-2009)

How should nasal nitric oxide be measured to screen for PCD in children? Dell S, Grasemann H, Ratjen F. The Hospital for Sick Children Paediatric Consultants Partnership’s Grant ($10,000 2006-2007)


Multi-center, multi-national, randomized, placebo-controlled trial of azithromycin in participants with Cystic Fibrosis, 6-18 years old, culture negative for Pseudomonas aeruginosa, Ratjen F. Cystic Fibrosis Foundation Therapeutics Inc. (salary support US$36,546 2006-2007)

Mucociliary clearance consortium. Ontario asthma database – Asthma plan of action strategy. To T, Cicutto L, Dell S, Dick PT. The Ontario Ministry of Health and Long-Term Care ($500,000 2003-2007)


Randomized, open labeled, cross over depletion study of Tobramycin 100 Pari nebulized with eFlow® versus TOBI® nebulized with Pari LC PLUS® in subjects with CF. Coates AL, Ratjen F, Charron M. Pari Gmb ($130,000 2006)


DIVISIONAL OVERVIEW
The Division of Rheumatology provides comprehensive care for children with rheumatic diseases. The ambulatory clinics have approximately 5,000 patient visits per year at The Hospital for Sick Children and Bloorview Kids Rehab sites and the outreach clinic in Sudbury. In addition to the general rheumatology clinics, there are unique multidisciplinary subspecialty clinics for children with dermatomyositis, morphea, systemic JIA and systemic lupus erythematosus. A new clinic for children with central nervous system vasculitis has been initiated. The division makes extensive use of the medical day care unit, where children receive joint injections under anaesthesia, therapeutic infusions or undergo investigations which would otherwise require inpatient admission. An increasing number of children have benefited from treatment with biologic agents on the medical day care unit.

The Division of Rheumatology has the largest paediatric rheumatology fellowship training program in North America and is fully accredited by the Royal College of Physicians and Surgeons of Canada. This academic year, our fellows originated from Czechoslovakia, Israel, Turkey, India and Canada. Paediatric Rheumatology graduates have done extremely well in obtaining academic placements across Canada and around the world and trainees have been productive in the research arena.

Research foci include the development of trial design for the study of rare diseases, outcome, prognosis and treatment studies in juvenile arthritis, SLE, neonatal lupus, scleroderma, dermatomyositis and vasculitis. Basic research focuses on the immunopathogenesis of Kawasaki disease using an animal model.

Dr. Susanne Benseler was appointed as a full-time faculty member in the Division of Rheumatology. Dr. Benseler is a clinician-investigator with a major research interest in central nervous system vasculitis.

The Paediatric Rheumatology Training Program had an extremely positive review by the Royal College of Physicians and Surgeons Accreditation team and was recommended full approval for the next six years.
HONOURS AND AWARDS

Feldman B: Canada Research Chair in Childhood Arthritis, Tier II, 2007.

Feldman B: Department of Paediatrics Research Achievement Award, June 2007

Feldman B: Winner of the Arthritis Foundation (Alabama Chapter) Outstanding Speaker Award for Rheumatology on the Beach, 2007.

Silverman E: Advisor, Arthritis Panel, U.S. Food and Drug Administration.

Tse S: Promoted to Program Director in the Division of Rheumatology.


Stringer E: Tied for third place at the May 2007 Department of Paediatrics Annual Research Day for her Oral Presentation: Predicting the disease course of juvenile dermatomyositis – significance of early and clinical laboratory features.

Stringer E: Winner of the Canadian Rheumatology Association Paediatric Research Prize.

Stringer E: Runner up for the Department of Paediatrics 2007 CanMeds Award.

Tyrrell P: IMS, PhD candidate at the University of Toronto under the supervision of Dr. Earl Silverman, was one of six finalists in the University of Toronto, Institute of Medical Science Annual Laidlaw Manuscript Competition. The title of his presentation was Atherosclerosis & lipid abnormalities in paediatric systemic lupus erythematosus.

PUBLICATIONS


Kawasaki disease: On our way to unraveling the pathogenesis. Yeung RSM. Canadian Institutes of Health Research ($318,873 2005-2008)


Superantigens in autoimmunity. Yeung RSM. Canadian Institutes of Health Research ($172,553 2006-2008)


The role of chronic inflammation and Systemic Lupus Erythematosus-related factors in the development of premature atherosclerosis in paediatric SLE. Silverman ED, Bargman J, Bradley T, Beyene J. The Heart and Stroke Foundation of Canada ($275,000 2006-2009)

The role of traditional and non-traditional risks in the development of atherosclerosis in paediatric SLE. Silverman ED, McCrindle B, Adeli K, Bargman J. The Heart and Stroke Foundation of Canada ($271,854 2003-2006)

Towards a better understanding of Kawasaki disease. Yeung RSM. The Heart and Stroke Foundation of Canada ($160,565 2006-2008)


Towards understanding the mechanism of congenital heart block. Hamilton RH, Gross G, Silverman ED. Canadian Institutes of Health Research ($197,000 2006-2009)


DIVISIONAL OVERVIEW

In November 2006, the inpatient Bloorview site relocated to our new facility to complete the final phase of our move. Inpatients, outpatients, clients, and staff are all enjoying our state-of-the-art facility, which sets standards for universal accessibility. As a provincial facility, we see almost 7,000 children and youth on an outpatient basis and we have over 650 patient admissions each year.

Bloorview Kids Rehab offers both inpatient and outpatient developmental and rehabilitation services to the children and families of Greater Toronto and provides tertiary services in paediatric rehabilitation to the Province of Ontario.

Through the support of the Bloorview Kids Foundation, which funds three positions, and Surrey Place Centre, which funds one position, we continue to provide the largest Royal College accredited training program for developmental paediatrics in the country.

The Bloorview Research Institute continues to grow under the leadership of Dr. Colin Macarthur, Vice-President, Research.

All of our medical staff members have appointments in the Department of Paediatrics at the University of Toronto.

Our medical staff members lecture at the undergraduate level and throughout the year to paediatric, neurology and physiatry residents. Dr. Milo-Manson coordinates the developmental seminar for second year medical students at the University of Toronto.

Dr. Anne Kawamura is our new paediatric resident rotation coordinator.

HIGHLIGHTS

- Dr. Darcy Fehlings appointed Division Head of Developmental Paediatrics, University of Toronto
- Successful Royal College accreditation April 2007

BLOORVIEW INTERPROFESSIONAL GRAND ROUNDS

- Introduced in January 2007 and occurring monthly to bring leaders in their respective fields to Bloorview
- Evidence-based practice, key patient safety and interprofessional initiatives are a few examples

MEDICAL SERVICES STAFFING

Bloorview Kids Rehab

- Medical staff plus active consulting staff 9.5 FTEs
- Subspecialists 17

Department of Pharmacy

- Pharmacists 2.0 FTEs
- Pharmacy Assistant 1.0 FTE

Department of Dental Services

- Dr. Rob Carmichael appointed new Chief of Dental Services, June 1, 2007
- Chief of Dentistry and Manager
- Part-time staff 8

MEDICAL EDUCATION 2006

- Paediatric RII 440 days
- Paediatric R4 30 days
- Neonatology 150 days
- Neurology 180 days
- Psychiatry 20 days
- PM&R 120 days
- Medical students 200 days
- Developmental paediatric subspecialty residents 1490 days
- Total 2630 days
PUBLICATONS


BOOKS AND BOOK CHAPTERS


FUNDING


The experience of hope in the psychosocial adaptation of parents of a child with DMD. Tomiak E, Biggar D. CHEO Research Institute ($10,000 2007-2008)


The experience of hope in the psychosocial adaptation of parents of a child with DMD. Tomiak E, Biggar D. CHEO Research Institute ($10,000 2007-2008)


Validation of accelerometer as a measure of physical activity and inactivity in children with chronic disease. Feldman B, Biggar D. Canadian Institutes of Health Research/Institute of Musculoskeletal Health and Arthritis ($64,985 2007-2009)

Western Canada standards of care Initiative for Duchenne muscular dystrophy. Mah J, Moore M, Biggar D. CINRG International Grant Award, University of Calgary ($20,000 2007-2008)
DIVISIONAL OVERVIEW

As a nationally and internationally recognized transplant program, PAMOT is focused on the delivery of cutting-edge and state-of-the-art family-centered care for patients. Excellence in clinical care is enhanced by an active multi-specialty educational program, a fellowship training program for emerging transplant physicians, and advancing knowledge in the field of transplantation by promoting and encouraging fundamental, translational and patient-based research activities.

PAMOT is one of the largest paediatric solid organ transplant programs in North America, with well over 1000 children in receipt of a solid organ transplant at this hospital. This past year has continued to be a busy clinical year for all the organ transplant groups. On May 18, 2007, we celebrated the opening of the 6A Liam’s Light Step Down Unit; a project launched by the Liam’s Light Charity in conjunction with SickKids Foundation. We also celebrated the 20th year of liver transplantation at the hospital, with a well attended multidisciplinary event at the Toronto Metro Zoo in September 2006.

The training of a cadre of fellows who have been successful in obtaining academic appointments globally is another achievement of the PAMOT program. Our international trainees assuming faculty positions in their country of origin also serve as international ambassadors for The Hospital for Sick Children, the University of Toronto and Canada. Trainees continue to reflect the international nature of the fellowship program and the multi-disciplinary nature of transplantation, as illustrated by the following selection of recent trainees: Yaron Avitzur (Israel, Gastroenterology); Anne Durkan (England, Nephrology); Sara Fernandez (Costa Rica, Nephrology); Daljit Hothi (England, Nephrology); Victoria Samonte (Philippines, Critical Care); and Jason Yap (New Zealand, Gastroenterology).

Current basic and clinical research activities are focused on optimizing outcomes in children after solid organ transplantation. Examples of research projects with extramural funding include: vaccination strategies; prevention of Epstein-Barr virus and Respiratory Syncytial virus complications post-transplantation (Upton Allen); long term quality of life following heart transplantation (Anne Dipchand); xenotransplantation (David Grant); adolescent issues of transition to adult care (Miriam Kaufman); techniques to enhance lung recovery for transplantation (Shaf Keshavjee); quality of life study in liver transplantation (Vicky Ng); and leukocyte trafficking in allograft rejection (Lisa Robinson).

We continue active participation in international paediatric transplantation clinical research groups including the North American Pediatric Renal Transplant Cooperative Study Group, the Pediatric Heart Transplant Study Group, NIH funded fulminate liver failure study group, and the SPLIT of Pediatric Liver Transplantation Registry. Members of PAMOT continued to serve as advocates for paediatric solid organ transplantation at the provincial, national and international levels including for example: participation in the International Pediatric Lung Transplant committee (Mindy Solomon); and membership on the Trillium Gift of Life Board (David Grant, Diane Hebert).
Paediatric Housestaff

PGY4S
Chief Residents
Dr. Sanjeev Luthra
Dr. Jonathon Maguire

Associate Chief Residents
Dr. Heidi Al-Wassia
Dr. Youness Al-Darazi
Dr. Nirit Bernhard
Dr. Dan Flanders
Dr. Sloane Freeman
Dr. Elizabeth Gold
Dr. Fotini Kavadas
Dr. Shaun Morris
Dr. Nileshwa Senthe
Dr. Sarah Wan

PGY3S
Dr. Ghassan Abu Kuwaik
Dr. Naifain Al-Kalbani
Dr. Nashat Al-Sukaiti
Dr. Daniela Ardelean
Dr. Celia Atkinson
Dr. Elly Berger
Dr. Karoon Danayan
Dr. Krishanthi Gunawardena
Dr. Clare Hutchinson
Dr. Marissa Joseph
Dr. Mary Klaira
Dr. Vy Kim
Dr. Catherine Lam
Dr. Mathieu Lemaire
Dr. Carey McLaughlin
Dr. Michelle Porepa
Dr. Tania Samanta
Dr. Rayzie Shulman
Dr. Joanna Swinburne
Dr. Eitan Weinberg

PGY2S
Dr. Dalia Al-Abdulrazzaq
Dr. Fatoumah Al-Abdulrazzaq
Dr. Amal Al-Maani
Dr. Sowmya Balasubramanian
Dr. Ereny Bassilious
Dr. Michelle Batthish
Dr. Glenda Bendiak
Dr. Nicholas Blanchette
Dr. Michelle Bridge
Dr. Sumit Gupta
Dr. Joeline Huber
Dr. Sangeet Kathuria
Dr. Tarek Khalefi
Dr. Melanie Makhiha
Dr. Shruti Mehrotra
Dr. Briseida Mema
Dr. Ewurabena Simpson
Dr. Andrea Wan
Dr. Kevin Weingarten

PGY1S
Dr. Fahed Aljaser
Dr. Ahmed Alterkait
Dr. Kesete Bezu
Dr. Joyce Ching
Dr. Avram Bezu
Dr. Alisha Kassam
Dr. Rae Koffman
Dr. Dianne Lim
Dr. Nadia Lucia
Dr. Arif Manji
Dr. Gagandeep Saund
Dr. Deena Savlov
Dr. Ksenia Slywynska
Dr. Gordon Soon
Dr. Christopher Sulowski
Dr. Mark Tessaro
Dr. Nisha Thampi
Dr. Alène Touilany
Dr. Kirsten Wentlandt (PGY1 neuro)

PRACTICE READY ASSESSMENT (PRA)
Dr. Wang Cheong Mak
The 2006-07 academic year saw another successful and exciting Department of Paediatrics Grand Rounds series. The purpose of Paediatric Grand Rounds in the Department of Paediatrics at the University of Toronto is to bring the world’s most eminent clinicians, scientists, and medical educators to SickKids. Grand Rounds provides an opportunity for SickKids’ faculty, house-staff, and students to experience cutting-edge research relevant to the health care of children. All presentations highlight the link between the bench and bedside, demonstrating how new scientific advances translate into state-of-the-art health care for children.

The Grand Rounds program is organized by a committee that consists of Drs. Meredith Irwin, Lisa Robinson, Jamie Hutchison, Saul Greenberg, Johanna Rommens, Rayfel Schneider, Ron Laxer, Neil Sweezey, Jill Hamilton, and Anne Opavsky, as well as our paediatric Chief Residents, Drs. Jonathon Maguire and Sanjeev Luthra.

One of the highlights of the 2006-07 series was the 2006 Robert H.A. Haslam Lecture, which was delivered by Dr. Denis Daneman, incoming Chair of the Department of Paediatrics here at SickKids. Dr. Daneman gave an interesting lecture on the everyday challenges of caring for children with diabetes. Dr. Georges Rivard, Director of the Haemostasis Program at the Centre Hospitalier Universitaire Sainte-Justine in Montreal gave a fascinating presentation on the genetics, diagnosis, and emerging treatment options for haemophilia. Dr. Nicholas Evans from the University of Sydney was invited to give the 2006 Barry Smith Lecture. He delivered a state-of-the-art presentation on the role of assessment and support of the transitional circulation in preventing brain injury to preterm infants. Dr. Jeffrey Towbin, Director of the Heart Failure and Cardiomyopathy Service at Texas Children’s Hospital and Baylor College of Medicine, presented important findings on the pathogenesis and outcomes of cardiomypathies and myocarditis in children. Dr. Robert Brent, Distinguished Professor of Pediatrics, Radiology, and Pathology, and Head of the Clinical and Environmental Teratology Research Lab at Thomas Jefferson University presented his ground-breaking research on children’s outcomes following exposure to radiation during pregnancy. Other highlights included lectures from Drs. Ulrika Kreicbergs (Children’s Hospital of Boston), Robert Truog (Children’s Hospital of Boston), Brent Hagel (University of Calgary), Eric Shoubridge (McGill University), Jessica Kahn (Cincinnati Children’s Hospital), Martin Tobin (Loyola University Hospital), Robert Black (Johns Hopkins University), Deborah Cook (McMaster University), and Paul Sharek (Stanford University).

Once again this year, our own faculty delivered outstanding presentations, including Drs. Sheila Weitzman (Haematology/Oncology), Brian Feldman (Rheumatology), Stanley Zlotkin (Gastroenterology, Hepatology, and Nutrition), and Upton Allen (Infectious Diseases). Dr. Jill Hamilton from the Division of Endocrinology and Dr. Gabrielle Boulianne from the Research Institute program in Developmental and Stem Cell Biology gave a memorable joint clinical science/basic science presentation. Their work clearly illustrated how research studies using fruit flies and clinical studies involving children can further our understanding of obesity, a very common health problem among children.

In addition to these lectures, our Associate Chief Residents presented interesting cases from the paediatric service. Dr. Lars Feuk from the Genetics and Genome Biology program presented his research as the recipient of the 2007 Andrew Sass-Kortsak Award for Excellence in Paediatric Research during a Fellowship. These represent only a fraction of the outstanding rounds which made up the 2006-07 series.

Grand Rounds will continue to be held on Wednesdays from 9:00 a.m. to 10:00 a.m. in the Main Auditorium at SickKids. The Department of Paediatrics Grand Rounds Committee would like to acknowledge the help and support of the following people, to whom we are very grateful: The Paediatric Executive Committee; Sylvia Muir, Division of Haematology/Oncology; Valerie Daniels, Department of Paediatrics; and Frank Ferrari and Sam Mendolia from the Audio-Visual Department at SickKids.
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<th>Date</th>
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<td>July 5-August 30</td>
<td>Summer Grand Rounds</td>
<td>Chief Residents</td>
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<td>September 6</td>
<td>No Grand Rounds</td>
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<td>September 13</td>
<td>Sheila Weltznan MB, BCh, FCP(SA), FRCP</td>
<td>HLH – Diagnostic and therapeutic dilemmas</td>
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<td>Senior Staff Oncologist and Director of Clinical Services, Division of Haematology/ Oncology, SickKids</td>
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<td>September 20</td>
<td>Jeffrey Towbin MD</td>
<td>Cardiomyopathies and myocarditis in children</td>
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<td>Baylor College of Medicine, Texas Children’s Hospital</td>
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<td>September 27</td>
<td>Denis Daneman MB, BCh, FRCP</td>
<td>The everyday challenges of diabetes</td>
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<td>Chair, Department of Paediatrics, SickKids</td>
<td>2006 Robert Haslam Lecture</td>
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<td>October 4</td>
<td>Brian Feldman MD, FRCP</td>
<td>The quality of life for children with chronic illness</td>
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<td>Staff Rheumatologist, Division of Rheumatology, SickKids</td>
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<td>October 11</td>
<td>Ulrika Kreicbergs RN, PhD</td>
<td>Can we learn from those who already know: A nationwide study on parents who lost their child to cancer Palliative Care Grand Rounds</td>
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<td>Postdoctoral Research Fellow, Dana-Farber Cancer Institute, Children’s Hospital Boston, Boston, Massachusetts</td>
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<td>October 18</td>
<td>Georges Rivard MD</td>
<td>Haemophilia: From royal genes to diagnosis and treatment 2006 Bernard Laski Lecture</td>
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<td>Director, Haemostasis Program and the Haemostasis Clinical Laboratory, Centre Hospitalier Universitaire Sainte-Justine, Montreal, Quebec</td>
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<td>October 25</td>
<td>Stanley Zlotkin OC, MD, PhD, FRCP</td>
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<td>Division Head and Medical Director of the Nutrition Support Program, Division of Gastroenterology, Hepatology and Nutrition, SickKids</td>
<td>Micronutrient Sprinkles to control childhood anemia: Addressing an unresolved global problem through innovation, focused research and partnerships</td>
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<td>November 1</td>
<td>Sarah Cheang MD</td>
<td>Associate Rounds – Case presentations</td>
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<td>Elizabeth Gold MD</td>
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<td>November 8</td>
<td>Robert D. Truog MD</td>
<td>Donation after cardiac death: The next great advance in organ transplantation?</td>
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<td>Professor of Medical Ethics and Anaesthesia, Harvard Medical School, Children’s Hospital of Boston, Massachusetts</td>
<td>Bioethics Week Lecture</td>
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<td>November 15</td>
<td>Brent Hagel PhD</td>
<td>The reasons for and against helmet use in recreational activities: What to tell your patients and their parents</td>
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<td>Department of Paediatrics and Community Health Sciences, Calgary, Alberta</td>
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<td>November 22</td>
<td>Upton Allen MBBS, MSc, FAAP, FRCP</td>
<td>The Epstein-Barr virus and weakened immune systems: Hopes, expectations and challenges</td>
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<td>Head, Division of Infectious Diseases, SickKids</td>
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<td>November 29</td>
<td>Eric Shoubridge PhD</td>
<td>The assembly of the respiratory chain and the mystery of tissue specificity in mitochondrial disease 2006 Jacob’s Ladder Lecture</td>
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<td>Principal Investigator, Molecular Neurogenetics, Molecular Neurogenetics Institute, McGill University, Montreal, Quebec</td>
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<td>December 6</td>
<td>Nicholas Evans DM, MRCPCH</td>
<td>The role of assessment and support of the transitional circulation in prevention of brain injury to preterm babies 2006 Barry Smith Lecture</td>
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<td>Clinical Associate Professor in Neonatal Medicine, Royal Prince Alfred Hospital, University of Sydney, Sydney, Australia</td>
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<td>December 13</td>
<td>Department of Paediatric Residents</td>
<td>Annual Holiday Presentation</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Speaker</td>
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<tr>
<td>January 3</td>
<td>No Grand Rounds</td>
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<tr>
<td>January 10</td>
<td>Associate Rounds #2</td>
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<tr>
<td>January 17</td>
<td>Jessica Kahn MD, MPH Associate Professor of Pediatrics, Cincinnati Children’s Hospital, Cincinnati, Ohio</td>
<td>HPV: New vaccine, and issues in adolescents</td>
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<tr>
<td>January 24</td>
<td>Martin Tobin MD Professor of Medicine, Pulmonary, and Critical Care Medicine, Anesthesiology, Loyola University Hospital, Maywood, Illinois</td>
<td>Evidence based medicine issues</td>
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<tr>
<td>January 31</td>
<td>Berge Minassian MD Canada Research Chair in Paediatric Neurogenetics and Staff Neurologist, SickKids</td>
<td>The paediatric genetics epilepsies</td>
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<td>February 7</td>
<td>Lorelei Lingard MD Professional Educator, Medical Education — Undergraduate, Assistant Professor, Department of Paediatrics, University of Toronto</td>
<td>Medical education</td>
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<tr>
<td>February 14</td>
<td>No Grand Rounds due to renovations</td>
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<tr>
<td>February 21</td>
<td>No Grand Rounds due to renovations</td>
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<td>February 28</td>
<td>No Grand Rounds due to renovations</td>
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<tr>
<td>March 7</td>
<td>March Break</td>
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<tr>
<td>March 14</td>
<td>March Break</td>
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<tr>
<td>March 21</td>
<td>No Grand Rounds due to renovations</td>
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<tr>
<td>March 28</td>
<td>Robert Black MD, MPH Professor and Chair, Department of International Health, Johns Hopkins University, Baltimore, Maryland</td>
<td>Child survival in developing countries: Problems but promise</td>
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<tr>
<td>April 4</td>
<td>No Grand Rounds due to renovations</td>
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<tr>
<td>April 11</td>
<td>Deborah Cook MD, FRCP, MSc(Epid) Professor, Department of Medicine, Clinical Epidemiology and Biostatistics, Academic Chair, Critical Care Medicine, McMaster University, Ontario</td>
<td>Changing behaviour to implement evidence</td>
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<tr>
<td>April 18</td>
<td>No Grand Rounds due to renovations</td>
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<tr>
<td>April 25</td>
<td>Scott Halperin MD Professor of Paediatrics, Microbiology and Immunology and Head, Paediatric Infectious Diseases, Dalhousie University, Halifax</td>
<td>Vaccines: What’s hot and what is on the horizon</td>
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<tr>
<td>May 2</td>
<td>SOCIETY OF PAEDIATRIC RESEARCH SEMINAR</td>
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<td>May 9</td>
<td>Dr. Robert Brent AB, MD, PhD Head, Clinical and Environmental Teratology Research Lab, A.I. DuPont Hospital for Children, Distinguished Professor of Pediatrics, Radiology and Pathology, Thomas Jefferson University</td>
<td>Saving lives and changing family histories: The consequences of utilizing appropriate and inappropriate information when counseling families about developmental risks</td>
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<td>May 16</td>
<td>Gabrielle Boulienne PhD (Senior scientist) Jill Hamilton MD (Associate scientist and staff endocrinologist)</td>
<td>Exploring mechanisms for weight gain: Lessons from children with brain tumours and fat flies</td>
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<tr>
<td>May 23</td>
<td>RESEARCH DAY</td>
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<td>May 30</td>
<td>Sass-Kortsak Lecture</td>
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<td>June 6</td>
<td>Dr. Paul Sharek MD Stanford University</td>
<td>Pediatric patient safety — Defining and detecting adverse events in children</td>
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<td>June 13</td>
<td>Dr. John Pettifor MBCh Dept. of Paediatrics, Chris-Hani Baragwanath Hospital and the University of Witwatersrand, South Africa</td>
<td>Rickets in children – How important is dietary calcium intake?</td>
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<td>June 20</td>
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<tr>
<td>June 27</td>
<td>No Grand Rounds</td>
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Promotions/Recognition

PROMOTED TO PROFESSOR OF PAEDIATRICS
Dr. Anne Matlow
Dr. Jay Rosenfield

PROMOTED TO ASSOCIATE PROFESSOR OF PAEDIATRICS
Dr. Elizabeth Asztalos
Dr. Anne Dipchand
Dr. Annette Feigenbaum
Dr. Gil Gross
Dr. Joel Kirsh
Dr. Vicky Ng
Dr. Suzan Schneeweiss
Dr. Vibhuti Shah
Dr. Gary Smith

THOSE WHO REACHED NORMAL RETIREMENT AGE
The following reached normal retirement age in June of 2007
Dr. Douglas Biggar
Dr. J. Michael Dorey
Dr. Raphael Folman
Dr. Howard Langer
Dr. Irena Nulman
Dr. Joyce Nesker Simmons
Dr. Arne Ohlsson
Dr. Eve Roberts

25 YEARS OF SERVICE AWARDS
The following were honoured for their 25 years of
service to The Hospital for Sick Children in June of 2007
Dr. Amos Cohen
Dr. Denis Daneman
Dr. Lee Ford-Jones
Dr. Miriam Rossi
Dr. Sheila Weitzman
Faculty Awards

AWARDS

Teaching/Education Awards

R.H.A. Haslam Preclerkship Teaching Award to the faculty member who has demonstrated excellence in preclerkshop teaching
  Dr. Lillian Rojnica

The Lionel Weinstein Clerkship Teaching Award to the faculty member who has demonstrated excellence in clerkship teaching
  Dr. Angelo Simone

The Undergraduate Community Teaching Award in recognition of excellence in the teaching of medical students within community-based hospitals and offices
  Dr. Hartley Garfield

Harry Bain Award to a full-time member of the Department of Paediatrics who has demonstrated excellence in teaching as nominated by core paediatric residents
  Dr. Michael Weinstein

Marvin Gerstein Award to a part-time member of the Department of Paediatrics who has demonstrated excellence in teaching as nominated by core paediatric residents
  Dr. Norman Saunders

Postgraduate Community Teaching Award in recognition of excellence in the teaching of paediatric residents within community-based hospitals and offices
  Dr. Douglas Campbell

PERLS Award (Paediatric Educational Resident Lecture Series Award) to the faculty member who has demonstrated commitment to excellence in teaching at the Paediatric academic sessions
  Dr. Aru Bitnun

Subspecialty Teaching Award to the faculty member who has demonstrated commitment to excellence in teaching the subspecialty residents and clinical fellows
  Dr. Elena Pope

Continuing Medical Education Award to the faculty member in recognition of excellence in course coordination in an event sponsored by the Department of Paediatrics/University of Toronto and/or long-term contribution to Continuing Education in the Department of Paediatrics
  Dr. Suzan Schneeweiss

Clinical Awards

Richard Rowe Award for Clinical Excellence in Paediatric Medical Care to the physician in the Department of Paediatrics who has demonstrated excellence in the delivery of clinical care in the broadest sense over a significant period of time
  Dr. Lee Benson

Junior Faculty Award for Clinical Excellence in Paediatric Medical Care to a physician within the first 5-10 years of appointment to an Academic Health Sciences Centre, who has demonstrated excellence in the delivery of clinical care
  Dr. Jill Hamilton

Research Awards

Physician Researcher Award for Scientific Accomplishment to recognize the accomplishments of a physician who has generated a body of research that is exerting a major impact in a field of study. The awardee will be more than six and less than 15 years beyond the date of appointment as a faculty member at an Academic Health Sciences Centre. This award was first awarded in 2005.
  Dr. Brian Feldman

Physician Research Award for Career Excellence to recognize sustained excellence by a physician who has generated a body of work with relevance beyond a specific field of study. The awardee will be 15 or more years beyond the initial date of appointment as a faculty member at an Academic Health Sciences Centre. This award was first awarded in 2005.
  Dr. Paul Pencharz

Paediatric Administrative Award

In recognition of an administrative support staff member in the Department of Paediatrics who has demonstrated outstanding performance and excellence in all aspects of their role. This individual possesses outstanding communication and interpersonal skills and is motivated to perform above and beyond their daily responsibilities. This award was first awarded in 2007.
  Ms. Shona Magee
Resident and Fellow Awards and Achievements

TEACHING/EDUCATION AWARDS
Christopher Ondaatje Award to a senior resident for excellence in clinical teaching as nominated by core paediatric residents.
  Dr. Joanna Swinburne
  Dr. Jonathon Maguire

CanMEDS Award – Core Residents
  Dr. Joelene Huber
  Dr. Catherine Lam
  Dr. Michelle Porepa

CanMEDS Award – Subspecialty Fellow
  Dr. Dan Turner

CLINICAL AWARDS
The Saunders Prize to a senior resident who has demonstrated excellence in clinical paediatrics.
  Dr. Mathieu Lemaire

RESEARCH AWARDS
Junior Trainees
  Dr. Catherine Lam
  Dr. Elizabeth Berger

Senior Trainees – Clinical Science
  Dr. Adam Kirton
  Dr. Arvind Sehgal (Tie 2)
  Dr. Mark Walsh (Tie 2)
  Dr. Dragos Predescu (Tie 3)
  Dr. Elizabeth Stringer (Tie 3)

Senior Trainees – Basic Science
  Dr. Aleixo Muise (Tie 1)
  Dr. Adam Durbin (Tie 1)

ANNUAL RESIDENT AND FELLOw RESEARCH DAY
May 23, 2007
Oral Presentations
  Elizabeth Berger, Core Paediatrics
  Sickle cell disease in children: Osteomyelitis or vaso-occlusive crises? E Berger, N Saunders, A Khambalia, JN Friedman
  Paul Gill, Nephrology
  Suppressor of Fused is required for normal development of the murine cerebellum. PS Gill, R Mo, C-C Hui, ND Rosenblum
  April Kam, Emergency Medicine
  Paediatric cellulitis: Success of Emergency Department short course intravenous antibiotics. A Kam, J Leal, SB Freedman
  Loretta Lau, Haematology/Oncology
  HDM2 antagonist Nutlin-3 inhibits p73-HDM2 binding and activates p73. L Lau, J Nugent, MS Irwin
  Wanatpreeya Phongsamart, Infectious Diseases
  Tuberculosis in children and adolescents in Ontario: A population-based study. W Phongsamart, I Kitai, M Gardam, J Wang, K Khan, the Ontario TB Outcome Study Network
  Arvind Sehgal, Neonatology
  Impaired coronary artery perfusion is associated with early myocardial diastolic dysfunction in premature infants after ligation of the ductus arteriosus. A Sehgal, PJ McNamara

Poster Presentations
  Shaker Abdullah, Haematology/Oncology
  Expression of MYCN in paediatric synovial sarcoma. S Abdullah, M Zielenska, C Sherman, S Chan, PS Thorner, GR Somers
  Samina Afzal, Haematology/Oncology
  Role of lymphocyte recovery after allogeneic haematopoietic stem cell transplantation in predicting relapse in paediatric acute leukaemia. S Afzal, MK Ishaqi, J Doyle, A Gassas
  Fadia Al-Buhairan, Adolescent Medicine
  Paediatric Residents’ experiences in Adolescent Medicine. F Al-Buhairan, K Leslie, E Goldberg
  Todd R. Alexander, Nephrology
  The cytosolic C-terminus of NHE3 does not mediate its apical localization or baseline activity – Implications for blood pressure and pH homeostasis. RT Alexander, I Peltkova, A Durkan, S Grinstein
  Samim Al-Qadhi, Emergency Medicine
  A randomized controlled comparison of the effectiveness of different teaching strategies on proficiency in intraosseous placement skills. S Al-Qadhi, H Carnahan, A Dubrowski, S Mehta
  Abdulkader Al-Rezqi, Infectious Diseases
  Invasive mold infections in paediatric cancer and transplant patients: An eight year review. A Al-Rezqi, M Hawkes, J Doyle, S Richardson, U Allen
  Chhaya S. Ambekar, Haematology/Oncology
  Loss of Sbds results in dysregulation of Fas at the plasma membrane level. CS Ambekar, H Wang, K-i Watanabe, A Schimmer, Y Dror
  Juan Appendino, Neurology
  EEG in newborns with sinus venous thrombosis. J Appendino, M Cortez, E Sell, T Soma
  Michelle Barton, Infectious Diseases
  Immunogenicity of pneumococcal conjugate vaccine in paediatric solid organ recipients. M Barton, S Wasfy, A Dipchand, D Hébert, V Ng, M Solomon, U Allen
  Michelle Battish, Rheumatology
  Residents’ perceptions of an interactive web-based rheumatology teaching module. M Battish, E Bassilious, G Bendix, S Gupta, B Feldman, R Schneider, S Tse
  Tina Biss, Haematology/Oncology
  Clinical characteristics of pulmonary embolism in childhood – Experience from a single centre. TT Biss, LR Brandao, AK Chan, S Williams
  Darren J. Bridgewater, Nephrology
  Beta-catenin controls murine kidney development and expression of kidney patterning genes. DJ Bridgewater, ND Rosenblum
  Aviel Y. Butbul, Rheumatology
  Juvenile psoriatic arthritis (JPSA) is it a separate disease? AY Butbul, S Dhillon, PN Tyrell, ED Silverman

Elizabeth Stringer, Rheumatology
  Predicting the disease course of juvenile dermatomyositis – Significance of early and clinical laboratory features. E Stringer, D Singh-Grewal, R Laker, B Feldman
  Mark Walsh, Cardiology
  Left ventricular morphology and function predict outcome after Norwood palliation. MA Walsh, BW McCrindle, A Dipchand, D Manhiot, E Hickey, CA Caldaroni, GS Van Arsdell, SM Schwartz
Jason E. Cain, Nephrology
Lineage specific functions of GLI activators during murine kidney development. JE Cain, E Nieuwenhuis, C-C Hui, ND Rosenblum

Harold Chui, Adolescent Medicine
Impact of weight and menstrual function recovery on brain structure and function in adolescent-onset anorexia nervosa. HT Chui, B Christensen, RB Zipursky, DK Katzman

Min Rui Crow, Nephrology
Neuronal guidance cues Slit and Robo – new inhibitors of leukocyte trafficking. MR Crow, M Yan, G-Y Liu, S Tole, LA Robinson

Roberto Jose Diaz, Haematology/Oncology
Assessment of chemotherapeutic response in paediatric patients with optic nerve gliomas associated with proptosis. RJ Diaz, S Laughlin, R Buncic, G Nicolin, E Bouffet, U Bartels

Valeria E. Di Giovanni, Nephrology
The BMP receptor, ALK3, controls murine nephrogenesis. VE Di Giovanni, ND Rosenblum

Gautre Dohlen, Cardiology
Improving outcomes in high risk tetralogy of Fallot patients with right ventricular outflow tract stenting. G Dohlen, LN Benson, RR Chaturvedi, A Ozawa, D Fruitman-Power, K-J Lee

Adam Durbin, Haematology/Oncology
A JNK-dependent activation switch determines the oncogenic or tumour suppressive activity of integrin-linked kinase in rhabdomyosarcoma. AD Durbin, GR Somers, M Forrester, HE Hannigan, D Maikin

Walid I. El-Nagger, Neonatal-Perinatal Medicine
Role of amplitude integrated electroencephalography (aEEG) in Neonates with cardiovascular compromise. WI El-Nagger, M Keyzers, PJ McNamara

Amr El Shahed, Neonatal-Perinatal Medicine
Surfactant for meconium aspiration syndrome in full term infants. AI El Shahed, P Dargaville, A Ohlsson, RF Soll

Emer Finan, Neonatal-Perinatal Medicine
Clinical predictors of post-ligation cardiac syndrome (PLCS) in neonates. E Finan, SP Shivananda, L Teixeira, W Mak, PJ McNamara

Ayataka Fujimoto, Neurology
Magnetoencephalographic interictal epileptiform discharges under total intra venous anesthesia in children with lesion or non-lesion epilepsy. A Fujimoto, A Ochi, K Imai, R Sharma, A Hunjai, B Chu, S Holowka, SM Kemp, SH Chuang, A Matsumura, C Snead III, H Otsubo

Alya Galtseva, Nephrology
GLI3 is expressed in the primary cilium in the murine embryonic kidney. A Galtseva, C-C Hui, ND Rosenblum

Facundo Garcia-Bournissen, Clinical Pharmacology
External contamination of hair with MDMA (Ecstasy) determined by hair analysis in two young girls from a meth lab. F Garcia-Bournissen, F Asrar, Z Verjee, T Karaskov, G Koren

Joshua Greenberg, Haematology/Oncology
Rhabdomyosarcoma cells have an active estrogen receptor-β-mediated pathway that exhibits sensitivity to estrogen, and undergo apoptosis in response to 4’OH-Tamoxifen. JA Greenberg, S Somme, R Giercksky, D Malkin

Lars Grosse-Wortmann, Cardiology
Magnetic resonance imaging in the preoperative assessment of marginally hypoplastic left ventricles. L Grosse-Wortmann, TJ Yu, O Al-Radi, S-J Yoo, G van Arsdel, A Redington

Michael Hawkes, Infectious Diseases

Joelene Huber, Core Paediatrics
Kids on Kids’ Health: Creating a child health magazine with students from an urban, multicultural, low income elementary school. JF Huber, M Porepa, C Lam, H Au, CS Birken

Ryan Hung, Neurology
Vitamin D levels, vitamin D intake and sunlight exposure in paediatric multiple sclerosis. R Hung, R Vieth, R Goldman, E Sochett, B Barwell

Miho Inoue, Clinical Pharmacology
Safety of Ketorolac for analgesia in children after cardiac surgery. M Inoue, CA Caldarone, PN Cox, S Ito, H Fmdova, A Taddio, AM Guerguerian

Mohammed Kashif Ishaqi, Haematology/Oncology
Outcome of allogeneic haematopoietic stem cell transplantation for children with acute myelogenous leukaemia in second complete remission, single center experience. MK Ishaqi, S Afzal, A Dupuis, J Doyle, A Gassas

Shailly Jain, Medical Genetics
Increased elastolysis in Cutis Marmorata Telangiectasia Congenita. S Jain, A Hinie, M Beghetti, H Tresurer, G Taylor, M Silver, D Nykanen, D Chitayat

Anita Jethwa, Developmental Paediatrics
The development and evaluation of the HAT-D: A discriminative tool differentiating types of hypertonia in children. A Jethwa, D Fehlings, C Macarthur

Ben-Hur Johnson, Neonatal-Perinatal Medicine
Role of IL-1 in the neonatal rat model of chronic lung injury induced by exposure to 60% oxygen. B-H Johnson, M Yi, S Shek, R Belcastro, A Masood, RP Jankov, AK Tanswell

Kassia Johnson, Developmental Paediatrics

Roman Jurencak, Rheumatology
Antibody clustering in paediatric systemic lupus erythematosus (SLE). R Jurencak, M Fritzler, P Tyrell, L Hiraki, E Silverman

Fatini Kavadas, Immunology/Allergy
Antibiotic skin testing for children labeled with Type 1 hypersensitivity: A useful clinical tool. FD Kavadas, KR Seaban, Y Nofech-Mozes, M Husain, E White, AR Atkins

Adam Kirton, Neurology

Dror Koltin, Endocrinology
Idiopathic infantile hypercalcemia (IH) revisited: Positive results in a cohort of 20 infants screened for mutations of the calcium sensing receptor (CASR) gene. D Koltin, M Rachmied, EB Sochett, K Parker, BYL Wong, DEC Cole

Catherine Lam, Core Paediatrics
Efficacy of intravenous immunoglobulin therapy in juvenile dermatomyositis. C Lam, C Manihhot, E Pullenayegum, PN Tyrell, BM Feldman

Andrew L. Lau, Rheumatology
Induction of MMP-9 by inflammatory cells leads to coronary artery aneurysm formation in a murine model of Kawasaki Disease. AC Lau, TT Duong, S Ito, RS Yeung
Elana Lavine, *Immunology/Allergy*
Clinical course and immunological features of siblings with IRAK-4 deficiency. E Lavine, C Roifman

Melanie Makhija, *Infectious Diseases*
Paediatric neurocysticercosis – A twenty year review. M Makhija, J Brophy, D Tran, L Ford-Jones, J Keystone

Azhar Masood, *Neonatal-Perinatal Medicine*
Therapeutic hypercapnia protects against chronic neonatal lung injury, and prevents vascular remodeling, in the neonatal rat. A Masood, RP Jankov, M Yi, R Balcastro, S Shek, PJ McNamara, AK Tanswell

Chantal Morel, *Medical Genetics*
Cord blood stem cell transplantation in Niemann-Pick type 1A. CF Morel, A Gassas, J Doyle, JTR Clarke

Aleixo Muise, *Gastroenterology/Nutrition*
Protein tyrosine phosphate sigma is a susceptibility gene for ulcerative colitis. A Muise, A Griffiths, D Rotin

Angela Orsino, *Developmental Paediatrics*
A qualitative observational study of resident oral paediatric developmental case presentations. A Orsino, A Kawamura, L Lingard

Joanne F. Paul, *Emergency Medicine*
Perceptions of Paediatric Emergency Medicine fellows and program directors about their fellowship resuscitation teaching curricula. JP Paul, S Mehta

Jonathan S. Ponesse, *Developmental Paediatrics*
Patterns of nervous system and somatic malformation in Comorbid Mobius Syndrome and Autism Spectrum Disorder. JS Ponesse, H Wood, I Drmic, W Roberts

Michelle Porepa, *Core Paediatrics*
The diagnostic utility of MRI in differentiating between acute osteomyelitis and acute osteoarthrosis in children with sickle cell disease. M Porepa, CS Birken, PS Babyn, A Doria, PC Parkin

Dragos Predescu, *Cardiology*
Resting cardiac index, ejection fraction and exercise capacity in a paediatric heart failure clinic population. D Predescu, G Smith, C Slorach, AN Redington, PF Kantor

Rodica Retazar, *Emergency Medicine*
Spinal injuries in paediatric trauma patients. R Retazar, V Wu, P Wales, A Mikrogianakis

Dan W. Rhodes, *Clinical Pharmacology*
Calls to a support center for pregnant and planning women regarding exposures: the Motherisk Program. DW Rhodes, G Koren

Tal Schechter, *Haematology/Oncology*
Dosing adequacy and safety of unfractionated heparin in infants with thrombotic complications. T Schechter, Y Finkelstein, S Williams, AK Chan, M Ali, LR Brandan

Shazhan, Amed, *Endocrinology*
Risk factors for type 2 Diabetes (T2D) in youth with medication induced Diabetes (MID). A Shazhan, H Dean, J Hamilton, NT1DM Study Team

Sandesh Shivananda, *Neonatal-Perinatal Medicine*
Is 02 administration safe during transport of neonates with CHD? S Shivananda, K Muthulay, H Whyte, P McNamara

Adam Shlien, *Haematology/Oncology*
Genomic DNA copy number variations in Li-Fraumeni Syndrome: Distinguishing heritable and nonheritable tumours. A Shlien, M Pienkowska, B Baskin, S Nanda, H Druker, U Tabori, P Ray, D Malkin

Lyn Sonnenberg, *Developmental Paediatrics*
Addressing the rehabilitation needs of children with Spina Bifida in Kenya using participatory rural appraisal and community based rehabilitation: Bridging the gap. LK Sonnenberg, WD Biggar, T Kennedy, J Wee, R Bransford

Arthur Staroselsky, *Clinical Pharmacology*

Emily W.Y. Tam, *Neurology*
Cerebellar diffusivity on neuroimaging correlates with intraventricular hemorrhage in the preterm neonate. EWY Tam, SP Miller, D Xu, JI Berman, DB Vigxer, AJ Barkovich, DM Ferriero

Manilyn Tan, *Neurology*
Occipital bone compression of the superior sagittal sinus as a contributory factor in neonatal cerebral sinus venous thrombosis. M Tan, M Shroff, G deVeber, M Moharir, A Pontigon, A Kirtol

Toshihiro Tanaka, *Clinical Pharmacology*
The incidence of poor neonatal adaptation syndrome after intrauterine exposure to venlafaxine. T Tanaka, J Choi, Y Nomura, A Eirarson, G Koren, S Itto

Tony Truong, *Haematology/Oncology*
Features at presentation predict children with acute lymphoblastic leukaemia at low risk for tumour lysis syndrome. T Truong, J Beyene, J Hitzler, O Abla, AM Maloney, S Weitman, L Sun

Aoiife Waters, *Nephrology*
Ectopic notch activation in podocytes leads to structural alterations of the glomerular slit diaphragm. AM Waters, M Wu, T Onay, TD Piscione

Constance Williams, *Neonatal-Perinatal Medicine*
Do Neonatal Intensive Care Units follow parents' preferences in withdrawal of life-sustaining treatment? C Williams, H Kirpalani

Etan Wine, *Gastroenterology/Nutrition*
A model of pathogen-induced intestinal barrier injury in chronic inflammatory bowel diseases: Campylobacter jejuni-mediated disruption of polarized epithelial cell monolayers. E Wine, PM Sherman

Derek Wong, *Cardiology*
Intra-operative trans-esophageal coronary Doppler flow patterns in patients with D-Transposition of the great arteries undergoing arterial switch operation. D Wong, L Hess, F Golding, C Calderone, B McCrindle, C Malhout, L Nield

Man Yi, *Neonatal-Perinatal Medicine*
Inhibition of apoptosis in 60% oxygen-induced neonatal rag lung injury. M Yi, A Ziino, B-H Johnson, A Masood, R Jankov, K Tanswell

Meijian Zhao, *Neonatal-Perinatal Medicine*
Cisapride exerts a prokinetic effect in infants with abdominal wall defects and severe dysmotility. M Zhao, NT de Silva, AM Moore, JH Kim

Adrian J.A. Ziino, *Neonatal-Perinatal Medicine*
Role of cyclooxygenase-2 in 60% oxygen-medicated lung injury and alveolar formation in the neonatal rat. AJA Ziino, M Yi, R Belcastro, S Shek, CR Pace-Asciak, RP Jankov, AK Tanswell

Mohammed Zolaly, *Haematology/Oncology*
Non-Hodgkin's lymphoma in children under 5 years of age. M Zolaly, S Weiitman, A Naqvi, O Abla
With thanks to Dodge Baena, Lesia Olexandra and Rob Teteruk for their vision and creativity.