



# Annual Achievements Report



PARTNERSHIP

INTEGRITY

CURIOSITY

ENTHUSIASM

ACHIEVEMENT

SERVICE

The Office of Pediatric Surgical  
Evaluation and Innovation

## 2008 - 09



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“OPSEI is a key element  
of the new vision for  
pediatric surgery within  
the Province of British  
Columbia.”

## THE OFFICE OF PEDIATRIC SURGICAL EVALUATION AND INNOVATION

In 2003, the Pediatric Surgeons at BC Children’s Hospital published their vision of Pediatric Surgical Services in British Columbia, “*For Care, for Quality, for Life.*” Integral to the vision was the creation of the Office of Pediatric Surgical Evaluation and Innovation (OPSEI).

OPSEI is a key element of the new vision for pediatric surgery within the Province of British Columbia. With the ongoing advancement of surgical technology and the need to work within constrained resources, it is imperative that the Department of Pediatric Surgery at BCCH strives to provide the best surgical care to pediatric patients in the best setting for the best outcomes. To achieve this goal requires

comprehensive evaluation of new technologies, work processes and care delivery coupled with the ability to be innovative and progressive.

OPSEI serves to provide unique scientific insight to help policy makers, managers, planners, clinicians, and researchers to shape the future of pediatric surgical care in BC. In collaboration with the University of British Columbia, the Provincial Health Services Authority, the Child and Family Research Institute, OPSEI’s research will encompass the assessment of clinical care delivery, patterns of utilization and new technology and treatment modalities for pediatric surgery.



## A VISION FOR OPSEI

OPSEI aims to establish and maintain a unique position for BC Children's Hospital as a leader nationally and internationally in the delivery of high quality pediatric surgical care. It is an investment in conducting clinical and translational research, which contributes to the effectiveness, quality, and efficiency of pediatric surgical care and outcomes in BC. As innovators, we plan to expand the frontiers in pediatric surgical knowledge and understanding. As teachers, we will enthusiastically involve the educational community in our endeavors to inspire and engage surgical trainees. We will cultivate learning opportunities in order to create a rich, interdisciplinary academic environment in Pediatric Surgery within BC Children's Hospital.

"As innovators, we plan to expand the frontiers in pediatric surgical knowledge."

### OPSEI TEAM: ROLES & RESPONSIBILITIES



Dr. Geoffrey Blair, Chief of Pediatric Surgery, B.C. Children's Hospital

Responsible for site specific: effective delivery of clinical services; strategic and policy advice; site medical administration; quality monitoring and improvement; support for teaching and research.



Mr. Damian Duffy, Executive Director

Responsible for all OPSEI business operations and overall program management.



Mr. Stoney Chen, Operations Research Analyst

Responsible for all initiatives relating to access to care and surgical wait times.

## GOALS AND OBJECTIVES

The goals and objectives of OPSEI are:

1. To use operations research as a means of addressing critical utilization and access issues in surgical and perioperative care.
2. To facilitate the implementation of new technologies.
3. To assess the outcomes of new technologies on service delivery and patients.
4. To address critical patient flow issues within surgical clinics.
5. To advance and communicate pediatric surgical discoveries.
6. To strive for excellence in pediatric surgical education for medical students, residents, fellows, and faculty.
7. To facilitate clinical research, emphasizing randomized clinical trials that evaluate standard and innovative surgical therapies and surgical devices.
8. To support the development of new analytical methods for evaluating surgical treatments.
9. To advance innovation in surgery by creating a better understanding of practice.
10. To conduct quality of care studies that focus on surgical error reduction.
11. To investigate the health policy implications of research findings.
12. To educate new investigators in surgical services research.



Mrs. Bindy Sahota,  
Academic Admin. Assistant

Responsible for all academic support to the Pediatric Surgeons and coordinates undergraduate and postgraduate training programs.

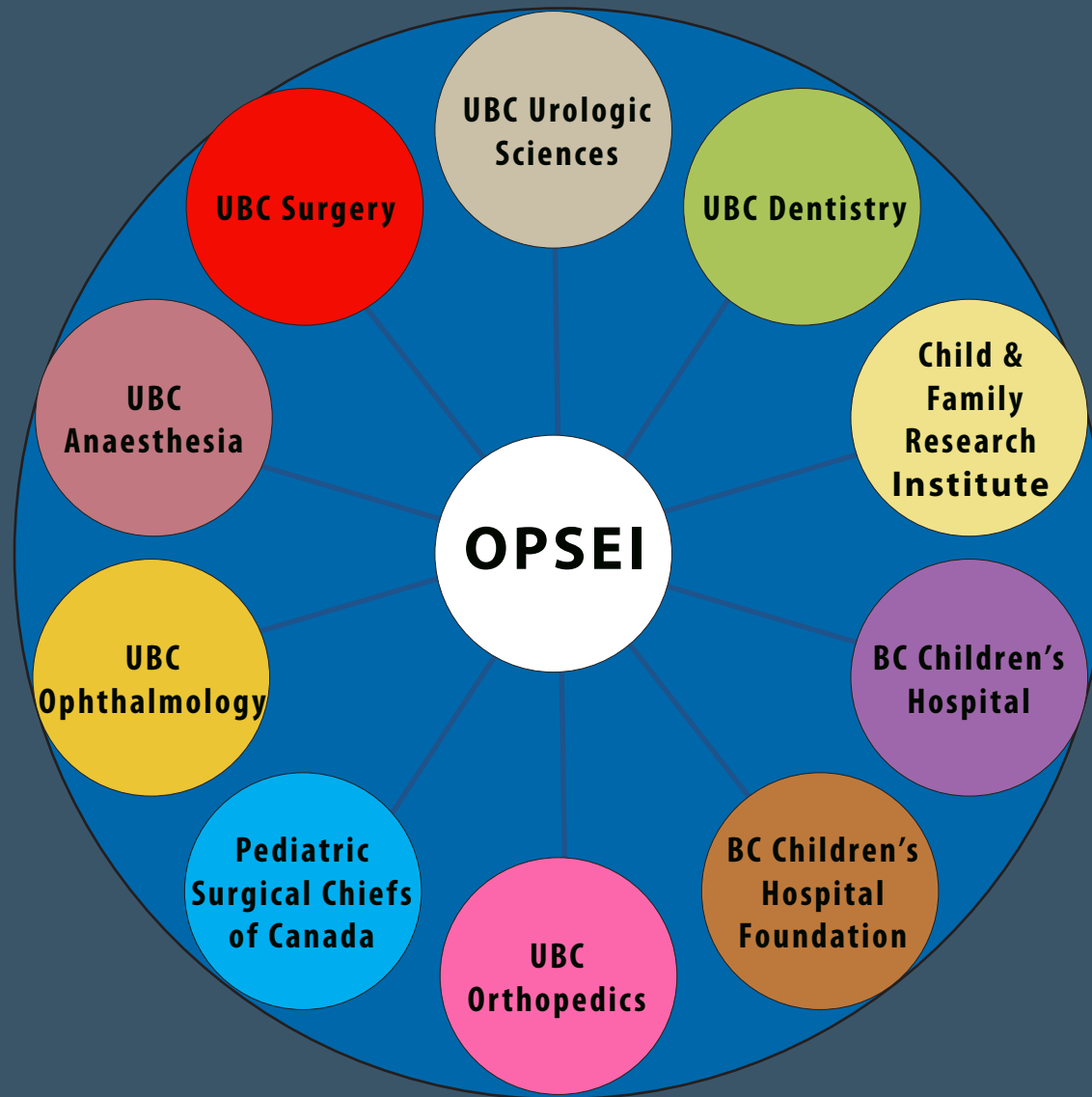


Mrs. Debbie Bertanjoli,  
Data Facilitation Officer

Responsible for the departmental website, academic databases and departmental publications.

Partnership  
Integrity  
Curiosity  
Enthusiasm  
Achievement  
Service

# PARTNERS IN PEDIATRIC SURGICAL INNOVATION



"The Office of Pediatric Surgical Evaluation and Innovation has had a very vibrant and exciting year, and we view this OPSEI annual report as a celebration of our fourth birthday since we opened our doors to the hospital and university community."

# OPSEI ANNUAL REPORT

## TEAM: 2008-09

**Dr. Geoffrey Blair**  
Chief of Pediatric Surgery

**Mr. Damian Duffy**  
Executive Director

**Ms. Bindy Sahota**  
Academic Administrative  
Assistant

**Ms. Debbie Bertanjoli**  
Data Facilitation Officer

**Mr. Stoney Chen**  
Operations Researcher

## CLINICAL RESEARCH AND EDUCATION

OPSEI continues to foster an environment which promotes student and faculty partnerships in clinical research, and during the summer of 2008 within the Department of Pediatric Surgery, our Pediatric Surgeons supervised some 33 summer students. The scholarly activity was incredibly diverse from looking at long-term outcomes in neurosurgery to pain management in scoliosis to evaluation of cochlear implantations in children with disabilities. We are pleased to report that 14 summer student projects went on to present their projects at the Western Society of Pediatric Research in Carmel, California in January, 2009. Prior to presenting at this international scientific meeting, OPSEI offers a special practice session for the students to present their clinical research projects departmentally and receive valuable feedback. Given the excellence of the students' work, 8 of these students were awarded competitive Travel Awards through the UBC Faculty of Medicine and the Child and Family Research Institute. There is enormous enthusiasm among students to participate in our clinical research program, and there are many students already enrolled for projects in 2009. Moreover, the UBC Alma Mater Society provided OPSEI with a grant to establish a Medical Student Research Club at the UBC Oak Street Campus for students interested in Pediatric Surgery and Pediatric Anesthesia.

Over the last four years, OPSEI has provided an interdisciplinary Academic Round on the first Tuesday of each month. The focus of this round is to discuss innovative advances and evaluation of patient care which attracts broad representation from all the surgical disciplines, anesthesia, nursing, and administration. This round is accredited as a Continuing Medical Education activity through the Royal College of Physicians and Surgeons of Canada, and we are pleased to advise that 212 hours of CME credits were earned through this academic forum.

OPSEI has received an educational grant from the Teaching and Learning Enhancement Fund to implement an educational project entitled, "Lights, Camera, Surgery: Production of Educational Videos within the OR Setting." This project will enable us to create surgical educational video resources for clinical learners of all levels

while providing students with innovative opportunities to learn and work within the surgical environment. While there are currently very successful student clinical rotations across all eight disciplines of pediatric surgery, it is essential to ensure that clinical learning opportunities are maximized through the application of modern technology. In this way, we can build, strengthen, and increase the capacity for learning within the constrained operative setting. Improvements in digital video production and ease of use have allowed us to move towards the design and implementation of instructional videos. This will give junior trainees a chance to understand the many aspects of a basic procedure without the pressure of the operating room environment. This project was designed to employ instructional video production in teaching basic surgical procedures. Medical student training capacity will be enhanced through offering training in video production within the clinical environment which will serve them well through their medical careers

## EVALUATING AND IMPROVING ACCESS TO CARE

OPSEI continues to build a unique relationship with The Centre for Excellence at the UBC Sauder School of Business. The COE supports the Masters in Management in Operations Research. Students engage in a number of relevant and practical projects with an increasing involvement in Health Care. In 2008, OPSEI provided project opportunities to two Masters students. One project was to look at alternative ways to redesign the BCCCH Operating Rooms. The goal of the project was to evaluate the idea of having a separate Ambulatory

Surgical Unit (ASU) designed specifically to handle relatively simple and less-resource-dependent surgeries for the new Children's Hospital. It was anticipated that more patients could be accommodated in a more efficient manner through flowing patients through "Express Surgery." For this purpose a model was developed to look at the flow of patients through the hospital and to evaluate how different plans for configuring the surgical suites of the new hospital could impact on both pre-and-post-surgical clinical resources.

The other exciting project was to look at ways to improve booking, scheduling and capacity management within the Department of Pediatric Radiology. In order to measure how the MRI unit responds to different booking scenarios, a simulation model was developed. To have a clear picture of how bookings affect the MRI waitlist, a booking optimization tool was created. With this tool, the number of bookings per week for different MRI exams can be changed and the model is able to show the effect of these changes on the MRI waitlist. A number of different proposals were put forward which related to capacity, waitlist, and variability – all of which help towards improving processes and capacity in the Department of Pediatric Radiology.

Through the BC Child and Youth Health Research Network, we have also received vital grant funding to look at the economic impacts of surgical cancellations on families. All too frequently, Pediatric Surgeons have the challenging task of communicating to families that their child's surgery has been cancelled. In preparation for the planned surgery, families have used vacation time, sick time, unpaid leaves from work, and costly reorganization of family activities, not to mention the increased costs of additional travel. In reviewing the medical literature, there appears to be little information that describes the economic impact of surgical cancellations on pediatric patients and their families in Canada. We are hopeful that this novel study will give us greater understanding of these important issues.



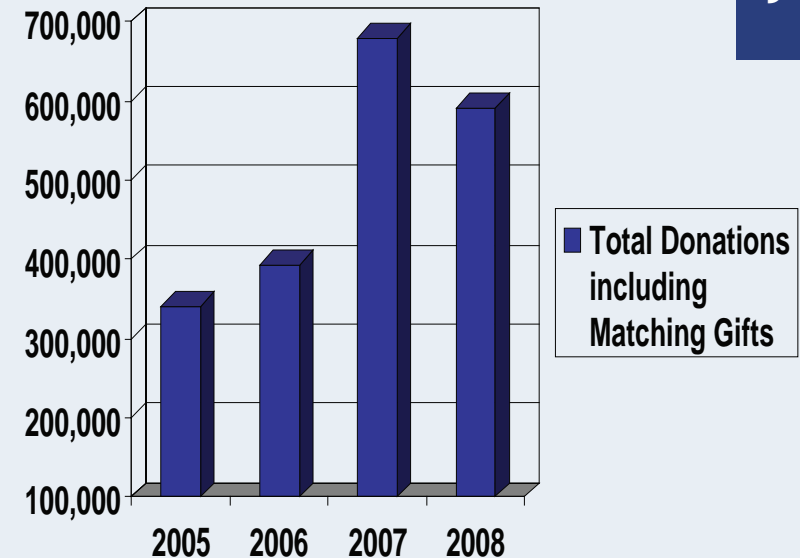
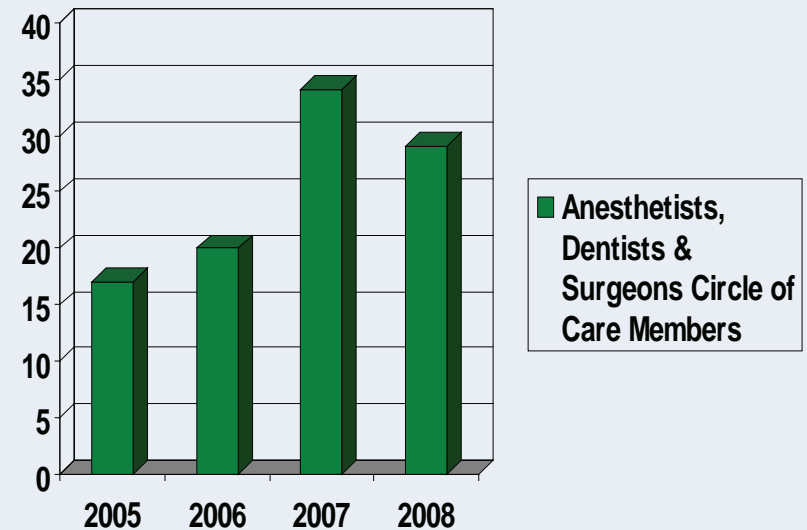
## CHILDREN'S CIRCLE OF CARE AND THE HOSPITAL FAMILY MATCHING PROGRAM

Each year, we work collaboratively with the BC Children's Hospital Foundation to raise funds through the Hospital Family Matching Gift Program in order to support and advance our patient care, research, and education mission.



I am extremely pleased to share with you that we have had a total of 29 donors contribute to the Children's Circle of Care Program within the Departments of Pediatric Anesthesia, Pediatric Dentistry and Pediatric Surgery for 2008. Moreover, it is especially a pleasure to report that we are warmly welcoming 5 new physician donors to the Children's Circle of Care Program. Their generous donations, along with the matching gifts, have raised a total of \$592,000.

I would also like to take this opportunity to thank Ms. Janice Williams and the whole BC Children's Hospital Foundation team who facilitate the Children's Circle of Care Program. Clearly, their important work has and will continue to make a difference in the care we provide to children and families at our hospital.





## GLOBAL HEALTH AND THE STUDENTS' GLOBAL HEALTH INITIATIVES

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“OPSEI continues to expand its partnerships and build synergies with other individuals and teams committed to Global Health.”

Over this past year, the Students' Global Health Initiatives built on previous successes by holding seven workshops in addition to the GHI annual recruitment night. The first workshop featured presentations by MSF field workers and logisticians. They talked about the challenges faced on the ground when doing humanitarian work, and included an interactive problem-solving component. We also heard from Universities Allied for Essential Medicines (UAEM), who discussed how research at universities can be better targeted to meet the needs of developing countries. The third workshop was organized by our GHI international project teams and drew from their own experiences working overseas. They designed interactive activities to build communication and intercultural skills. The first workshop of 2009 was focused on the UN Millennium Development Goals (MDGs) and featured a discussion of their history, their importance, and the progress towards them to date. Workshop 5, led by Dr. Judy McLean, was a discussion of the importance of nutrition to international development work, and the basic knowledge and skills relevant to performing a nutritional assessment. Dr. McLean also delivered a fairly comprehensive overview of common nutritional deficiencies in developing countries and their causes and consequences. Our most recent workshop, led by Dr. Lynn Farrales, was focused on a novel method of community engagement called Participatory Action Research (PAR). Dr. Farrales talked about the rationale underlying PAR and why it is a more effective means of

community engagement, needs survey, and development of a problem-solving strategy. She also led us in a small group brainstorming session where each group was given an international health problem in a specific community context and developed their own approach to conducting PAR in that setting. The final workshop this year will be a pre-departure session to prepare UBC students for international work. This workshop will be conducted in cooperation with GoGlobal UBC and with Dr. Michael Rekart and will address safety concerns and ethical concerns pertinent to work in the global arena.

As well as representing a unique opportunity for UBC medical students to gain additional skills and knowledge in the global health arena, these workshops build interdisciplinary collaboration through including other faculties, professional programs, and universities. All workshops are open to anyone, and are advertised widely, thereby providing a service to the community in the form of free global health skills training. Additionally, by inviting community partners and members of other affiliated organizations to attend, the workshops provide a means for GHI to reach out and build a network of like-minded groups focused on topics related to global health.

#### LIST OF 2008-2009 WORKSHOP TOPICS AND SPEAKERS

1. GHI Recruitment Night. September 30, 2008. Speakers: Dr. G. Stuart, C. Wu, M. Yan, and E. Berring.
2. Workshop 1. *Medicins Sans Frontieres*: Challenges and constraints in global health work. September 23, 2008. Speakers: J. Weterings and D. Johnston.
3. Workshop 2. Global health and the role of universities. October 21, 2008. Speakers: A. Gray, E. Wang, and A. Mehrabadi.
4. Workshop 3. International issues in health education. November 25, 2008. Speakers: Dr. C. Courneya, Dr. J. Gair, K. Stockley, D. Fang, J. Lubin, S. Park, B. Abbott, M. Sibley, and S. Else.
5. Workshop 4. Role of the UN Millenium Development Goals in global health work. January 13, 2009. Speakers: Dr. K. Ho.
6. Workshop 5: Nutrition and international development. February 10, 2009. Speakers: Dr. J. McLean.
7. Workshop 6: Participatory action research. March 5, 2009.

Speakers: Dr. L. Farrales.

8. Workshop 7: Pre-departure workshop for international projects and electives. April 14, 2009. Speakers: J. Walchli and Dr. M. Rekart.

#### KEY ACHIEVEMENTS IN GLOBAL HEALTH

1. Building and strengthening the relationship between Mulago Hospital and BC Children's Hospital through a Pediatric Surgery Camp in April, 2008, where more than 300 children received surgeries.
2. Health Education Partnership between UBC Medical Students and two remote communities in Rural Honduras.
3. OPSEI support for one Pediatric Anesthetist to participate in the "No Boundaries" Surgical Mission to Ethiopia in November, 2008.
4. OPSEI Global Health Movie Nights and Networking events.

#### OPSEI FORMAL PRESENTATIONS

1. Stockley K, **Duffy D**: CARE UBC International Learning Awards Project Presentation, March, 2009.
2. Collins C, **Duffy D**, Blair G: A roadmap to global health education; a student-led learning initiative. (The 8th Bethune Round Table for International Surgery, 2008).

#### PUBLICATIONS

1. **Duffy D**: To Liberia with Love: Baby Maxtina receives her life-saving surgery thanks to team work. The Slate Newsletter, OPSEI, Volume 2, 2009.
2. **Duffy D**, Merkeley H: Partnering with our Honduran Neighbours: A community-based project in the remote villages of San Isidro and Santiago. The Slate Newsletter, OPSEI, Vol 1, 20-21, 2008.
3. Merkeley H, Watchorn A, Chiles J, **Duffy D**. Health promotion in rural Honduras: Engaging women in order to improve the health of the communities. J Investigative Med, 57(1) 195, 2009.
4. Collins CLC, Yeong SK, **Duffy DJ**, Blair GK. A Roadmap to Global Health Education: A Student-led initiative. Can J Surg. 2008 August; 51(4): 308-316..



5. Turvey S, Kang K, Smitten J, Walton G, Yeong S, Chiles J, Watchorn A, Kapoor V, Macnab A, Stockley K, **Duffy D**, Abbott B, Park S. How does participating in an international trip affect students' global health knowledge? J Investigative Med, 57(1) 194, 2009.

## VIDEO EDUCATION RESOURCES PRODUCED

1. Uganda Hernia Camp 2008. **Duffy D**, Blair G, Reimer E, Akizuki J.
2. Partnership for Community Health: Canadian Medical Students in Honduras. **Duffy D**, Stockley K, Turvey S, Akizuki J.



## SUCCESSFUL GRANT FUNDING

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Project Title	PI	Team	Granting Agency	Amount
Promoting Health and Wellness through a Workplace Bike-to-Work Program among Staff	D. Duffy	D. Bertanjoli, G. Blair, A. Perdios, B. Sahota	UBC Healthy Workplace Initiatives Program Fund	\$6,400
Development of a Research Club for Undergraduate Students at the Oak Street Campus	D. Duffy	M. Ansermino, G. Blair, E. Skarsgard, A. Perdios	Alma Mater Society – Innovative Projects Fund	\$1,950
Evaluating the Economic Impact of Surgical Cancellations on Families	K. Afshar	D. Duffy, S. Jafari	BC Child and Youth Research Network	\$4,900
Lights, Camera, Surgery: Production of Educational Videos within the OR Setting	G. Blair	D. Duffy, J. Masterson, W. Chung, C. Zappavigna	UBC Teaching and Learning Enhancement Fund	\$14,850
Beliefs held about sexually transmitted diseases, condom use, and contraception in rural Honduran villages	J. Christilaw	S. Turvey, J. Chiles, A. Watchorn, D. Duffy, E. Paras	Summer Student Internship Program	\$3,200
CHYRNet Health Economics Travel Grant	D. Duffy	S. Jafari	Child and Youth Health Research Network	\$500
Health Promotion in Rural Honduras: Engaging Women in order to improve the health of the communities	H. Merkeley	D. Duffy	UBC Faculty of Medicine Florence E. Heighway Student Travel Award	\$500
2008 Uganda Hernia Camp	J. Dunlop, D. Lore		Auxiliary to BC Children's Hospital Foundation Education Grant	\$2,500





### STUDENTS, RESIDENTS, FELLOWS SUPERVISED

Name	Title
Mr. Hessam Bavafa	Master of Management in Operations Research Student, Scheduling in the Radiology Department
Ms. Candice Chan	Master of Management in Operations Research Student, Express Surgery in the New BC Children's Hospital
Ms. Katherine Jang	High School Student, OPSEI Practical Health Care Job Experience for High School Students Program
Ms. Katrina Stockley	Medical Student, Community Serving Learning, Doctor, Patient & Society Curriculum

### HONOURS AND AWARDS

1. Mr. Damian Duffy, Award of Merit, Academic Health, Health Employers Association of BC
2. Ms. Erin Berring, CARE UBC International Learning Award
3. Mr. Damian Duffy, CARE UBC International Learning Award
4. Ms. Anita Holtham, CARE UBC International Learning Award
5. Mr. Alex Leung, CARE UBC International Learning Award
6. Ms. Hayley Merkeley, CARE UBC International Learning Award
7. Ms. Erica Paras, CARE UBC International Learning Award
8. Mr. Brock Rawston, CARE UBC International Learning Award
9. Ms. Katrina Stockley, CARE UBC International Learning Award
10. Ms. Shannon Turvey, CARE UBC International Learning Award

### COMMITTEE PARTICIPATION

1. D. Duffy, Member, BC Children's Hospital United Way Fundraising Committee
2. D. Duffy, Member, Child and Family Research Review Committee
3. D. Duffy, Chair, BC Children's Hospital Foundation Fellowship Allocation Committee
4. D. Duffy. Member, Pediatric Surgical Executive Committee
5. D. Duffy, Member, Pediatric General Surgery Residency Training Committee
6. D. Duffy, Member, BC Children's Hospital Excellence in Education Awards Committee
7. D. Duffy, Project Co-Team Leader, UBC Students' Global Health Initiatives, Honduras, 2008
8. D. Duffy, Member, Advocacy Committee, UBC Association of Administrative and Professional Staff

# DIVISIONAL ACADEMIC HIGHLIGHTS

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"Since inception of the partnership in 2004, the Cardiac Sciences team has travelled twice a year to Shanghai for a period of 10 days per visit."



## PEDIATRIC CARDIOVASCULAR AND THORACIC SURGERY

**TEAM: 2008-09**

**Faculty:**

**Dr. Andrew Campbell**  
MD, FRCS(C)

**Dr. Jacques LeBlanc**  
MD, FRCS(C)

**Administrative Staff**

**Ms. Celia Magraw**  
Administrative Assistant

“The highlight and yet most melancholy event of the year was the retirement dinner for Dr. Jacques LeBlanc held in November at the Vancouver Aquarium.”

## HIGHLIGHTS AND ACHIEVEMENTS

Throughout 2008, the Division of Pediatric Cardiovascular and Thoracic Surgery continued to deliver specialized care to the children of Western Canada, and particularly to those of British Columbia. We continued to exceed national benchmarks for survival following cardiac surgery in all age categories and were identified as having the lowest mortality across Canada for older children undergoing open-heart procedures.

Dr. LeBlanc traveled back to Shanghai, and in collaboration with his counterpart in cardiac surgery at Fudan Children's Hospital, he co-chaired the Second International Symposium on Pediatric Cardiovascular Disease, an international conference which drew attendees from across Asia and North America. In addition he led outreach visits to 5 surrounding centres in eastern China to identify better ways of ensuring the best possible cardiac care could be delivered across this vast geographic region.

We continue to collaborate strongly with Neurosciences and in particular with Dr. Steven Miller on Abnormal Brain Development in Newborns with Congenital Heart Disease. The primary cohort for this investigation has already shed great insight on the neonatal brain's response to the pre-operative and intra-operative stresses of cardiac surgery, and with a successful CIHR grant our next objective is to determine how we can modify some of these risks and how fetal brain development is altered in these conditions.

The highlight and yet most melancholy event of the year was the retirement dinner for Dr. Jacques LeBlanc held in November at the Vancouver Aquarium. During his 25 year tenure at BC Children's Hospital Dr. LeBlanc has built a comprehensive and outstanding neonatal cardiac surgical program, trained and mentored countless residents and fellows, and dedicated himself to ensuring the best care across every discipline is delivered to the children of BC. He was honoured for this last accomplishment by the Department



of Pediatric Surgery with the creation of the Jacques LeBlanc Commemorative Lectureship on Pediatric Access to Care, an annual event which will bring together specialists across the country who are focused on improving the availability of health care of children throughout the world. As the recruitment of a new head of Pediatric Cardiovascular and Thoracic Surgery continues, Dr. LeBlanc very generously agreed to stay on at BC Children's Hospital to ensure a seamless transition to his successor would be guaranteed.



## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

1. **JGL** - April 21, 2008 - Invited lecturer, Apollo University Hospital, Chennai, India, delivered 2 lectures:
  1. Management of transposition of the great arteries
  2. Perioperative management of neonates and children with congenital heart disease
2. **AC** - May, 2008 - Invited speaker, Anesthesia Grand Rounds, St. Paul's Hospital, Vancouver, BC - Adult Congenital Heart Surgery: The Future.
3. **JGL** - November 14-15, 2008 - Second Symposium on Pediatric Cardiovascular Disease, Children's Hospital of Fudan University, Shanghai, China, Co-Chairman and Presenter of 5 lectures:
  1. Creating a global climate for pediatric cardiac care
  2. Surgical repair of transposition of the great arteries
  3. Hybrid procedures for congenital heart disease
  4. Evolution of the Fontan operation
  5. Surgical repair of atrioventricular septal defect
4. **AC** - February 2009 - Congenital Cardiovascular Pathology Lab Instructor. UBC Medical School, Vancouver, BC.
5. **AC** - March - April 2009 - PBL Tutor, Pulmonary Block. UBC Medical School, Vancouver, BC.

## PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. Hung T, **Campbell A**. Surgical Repair of Left Internal Jugular Phlebectasia. *Journal of Vascular Surgery*; 2008 Jun;47(6):1337-8.

2. Kalyanaraman M, DeCampi WM, **Campbell A**, Bhalala U, Harmon TG, Sandiford P, McMahon CK, Shore S, Yeh TS. Serial blood lactate levels as a predictor of mortality in children after cardiopulmonary bypass surgery. *Pediatr Crit Care Med*; 2008 May;9(3):285-8.
3. Jeewa A, Pitfield S, Potts JE, Sandor GGS, De Souza ES, Hollinger AJ, **Campbell AM**, **LeBlanc JG**, Sanatani S. Does cardiac resynchronization therapy improve hemodynamic function in children undergoing congenital heart surgery? *Canadian Journal of Cardiology*; 2008 Oct;24(E): 338.
4. Co S, **LeBlanc JG**, Jeewa A, **Campbell AIM**. The size of bovine jugular venous conduits in right ventricular reconstruction does not affect outcome or longevity. *Canadian Journal of Cardiology*; 2008 Oct;24(E):163.
5. Mohammadi S, Benhameid O, **Campbell AI**, Potts J, Joza J, Al-Habib H, Sett S, **LeBlanc JG**. Could we still improve early and interim outcome after prosthetic systemic-pulmonary shunt? A risk factors analysis. *European Journal of Cardiothoracic Surgery*; 34(3) 2008: 545-549.
6. Lau V, **LeBlanc JG**. Development of a cardiac sciences training curriculum. *Journal of Investigative Medicine* 57(1): 332;2009.
7. Co S, Jeewa A, Campbell AIM. The age at time of implantation does not affect conduit outcome in right ventricular reconstruction. *Journal of Investigative Medicine* 57(1): 456;2009.
8. **Leblanc JG**. New surgery for better outcomes - shaping the field of congenital heart disease. *The World Journal of Pediatrics*. (in press).
9. **LeBlanc JG**. Creating a global climate for pediatric cardiac care. *The World Journal of Pediatrics* (in press).

## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
Cell-based gene therapy for pulmonary hypertension: Application of an established therapy in a neonatal model	Andrew Campbell	Casey Van Breemen	UBC Department of Surgery	\$10,000
Abnormal Brain Development in Newborns with Congenital Heart Disease	Steven Miller	Andrew Campbell, Ruth Grunau, Ken Poskitt, Anne Synnes	Canadian Institutes of Health Research	\$798,370



## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Steven Co, B.Sc.	Undergraduate M.D. Research Student, University of British Columbia, May 2007-April 2008
Khalid Swenia, MD	Resident in Pediatric Cardiac Surgery, University of British Columbia, January 2008- June 2008
Vince Lau, B.Sc.	Undergraduate M.D. Research Student, University of British Columbia, April 2008-August 2008
Ming Ye, MD	Fellow in Pediatric Cardiac Surgery, BC Children's Hospital, July 2008-December 2008
Hossein Shayam, MD	Resident in Pediatric Cardiac Surgery, University of British Columbia, January 2009-present

## HONOURS AND AWARDS

Recipient	Name of Award	Date Received
Andrew Campbell	Family Centered Care Award, BC Children's Hospital	November 2008

## COMMITTEE PARTICIPATION

### Dr. Campbell

1. Jan. 2008 - present Member, Credentials Committee, BC Children's Hospital
2. Dec. 2007 - present Member, Search Committee for Head of Pediatric Cardiac Surgery, BC Children's Hospital
3. July 2007 - present Mentor, Careers in Action, Career Counselling Program, Faculty of Medicine, University of British Columbia
4. May 2007 - present Member, ECLS Steering Committee, BC Children's Hospital
5. May 2007 - present Member, ECLS Working Group Committee, BC Children's Hospital
6. Sept. 2005 - present Member, University of British Columbia Cardiac Surgery Residency Program Committee

7. May 2005 - present Co-chair, Cardiac Quality Assurance Committee, BC Children's Hospital
8. Jan. 2005 - present Member, Western Canadian Children's Heart Network

### Dr. LeBlanc

1. Jan. 2008 - Dec. 2008 Executive Director, Office of Pediatric Surgical Evaluation and Innovation

## PROJECTS AND INITIATIVES IN PROGRESS

### Molecular Science Laboratory

We are optimistic that 2009 will continue as a banner year for research in pediatric cardiac surgery, as we plan on supervising both a medical undergraduate summer student and a graduate student in physiology within our transitional molecular laboratory. The focus of research there will be on the initiators of irreversible pulmonary hypertension in children and the potential genetic loci for manipulation of established pulmonary hypertension. The first set of experiments are scheduled for June of 2009 and will attempt to recapitulate an aggressive model of pulmonary hypertension well studied in adult animal models, in a neonatal animal setting.

### Global Health

Dr. LeBlanc will continue to refine and deliver his formalized curriculum for the development of a pediatric cardiac program to the developing world, by again teaching and operating in both Chennai, India and throughout China in the summer of 2009.

### VAD Program

After much discussion with our colleagues in cardiology, ICU and perfusion and with their support the division is in the process of acquiring the first pediatric ventricular assist device for British Columbia. The device selected will be the Levotronic Centrimag pump, a centrifugal pump system which greatly minimizes the shear forces typical of this system by using a impellar suspended magnetically within the actual blood stream. This device will allow us to provide mechanical circulatory support to children with end-stage cardiac disease while avoiding many of the significant complications involved in simultaneous cardiac and respiratory support.

# THE DEPARTMENT OF PEDIATRIC DENTISTRY

“Since 1985 oral health care services have been provided to the children of BC who cannot be treated in the community, either with local or general anesthesia.”



## HIGHLIGHTS AND ACHIEVEMENTS

**TEAM:** 2008-09

### Faculty:

**Dr. Douglas H. Johnston**  
Head of Pediatric  
Dentistry

**Dr. Phoebe Tsang**  
Staff Pediatric Dentist

**Dr. Jong-Hyun Ban**  
Staff Pediatric Dentist

With the assistance of Drs. Rosamund Harrison and Joy Richman, a proposal for a graduate program in pediatric dentistry has been crafted. It has been approved by Joint Faculty and Faculty Council at UBC and accepted by the BC Society of Pediatric Dentists, the surgeon-in-chief Dr. Geoff Blair, the Dean of the Faculty of Dentistry, UBC, Dr. Chuck Shuler. The specialty program will have two students per year for three years and the graduates will obtain a Master of Science Degree, a diploma in Pediatric Dentistry and will be eligible to challenge the Fellowship Examination of the Royal College of Dentists of Canada. The first year of the program will take place primarily at UBC and the first year will have a ratio of 3.5 days of academic teaching and 1.5 days of clinical/teaching exposure. The second and third years of the program will be at BC Children's Hospital, outreach clinics and offices and international mission treatment. The students will be exposed to approximately one day every other week in the operating room at Children's.

There is currently only one English speaking program for the specialty of Pediatric Dentistry in Canada, located at U of T. Most specialists have been trained in the US or elsewhere and the number of specialists is not meeting the demands of the pediatric population in Canada.

Funding has been secured from the provincial government to purchase a coned beam CT scan for the department. The RFP has been drafted and will shortly be sent out to potential vendors. This unit will interface with the 3D stereo camera that has been in place for two years. Photos are taken of all children with cleft lip and palate and craniofacial anomalies for purposes of comparing outcomes for this population.

"With the assistance of Drs. Rosamund Harrison and Joy Richman, a proposal for a Graduate Program in Pediatric Dentistry has been crafted."





## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

1. 3 DMD stereo photography. Its application in cleft lip and palate and craniofacial outcomes. Presented to potential donors at the BC Children's Hospital.
2. What's new in Pediatric Dentistry. Addis Ababa, Ethiopia, Africa.
3. Quality assurance and risk management in the dental faculty located at Addis Ababa, Ethiopia, Africa.

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Dr. Winnie Chan	Resident
Dr. Nureem Somani	Resident
Dr. Tara Kean	GPR Resident from Vancouver General Hospital
Dr. Egle Sakalauskaite	GPR Resident from Vancouver General Hospital

## COMMITTEE PARTICIPATION

1. Executive 'No Boundaries' The Hospital for Sick Children charitable surgical missions
2. Board member, About Face International
3. Expert panel member for the Pediatric National Wait List study, representing pediatric dentistry
4. Expert panel member for the provincial 'Help Line'. Developed strategies and recommendations for the panel for pediatric dental issues
5. Member SSAC

## PROJECTS AND INITIATIVES IN PROGRESS

1. Development of a graduate program in the specialty of pediatric dentistry, the second one in Canada. This will be a three year Master of Science and Fellowship program with two students each year.
2. Funding has been secured for a coned beam CT scanner that will be located in the department. This will be the first one in Canada located in a pediatric hospital. It will be linked electronically with the three dimensional stereo camera (3DMD). All the images for the province will be taken by the hospital for children and adolescents with cleft lip and palate and craniofacial anomalies.





# THE DIVISION OF PEDIATRIC GENERAL SURGERY

"The Division of Pediatric General Surgery consists of 5 surgeons with practices dedicated exclusively to the care of infants and children of BC."



**TEAM: 2008-09****Faculty:****Dr. Erik D. Skarsgard**  
Division Head**Dr. Geoffrey K. Blair****Dr. Sonia A. Butterworth****Dr. James J. Murphy III****Dr. Eric M. Webber****Administrative Staff:****Ms. Lynda Fynn****Ms. Jill Haynes****Ms. Robyn Pullman****Ms. Susan Myhre****Ms. Kathy Robertson****Clinic Nursing Staff:****Ms. Christine Adamson****Ms. Amie Nowak****CAPSNet Research Coordinator:****Ms. Jennifer Claydon****OPSEI Data Analyst:****Mr. Stoney Chen**

"In late 2008, a new minimally invasive operating room dubbed a "SMART OR" opened."

## HIGHLIGHTS AND ACHIEVEMENTS

The Division of Pediatric General Surgery at BCCH is delighted to have welcomed back Dr. Sonia Butterworth to British Columbia and BC Children's Hospital. Dr Butterworth is a medical graduate of the University of British Columbia, and has completed residencies in General Surgery and Pediatric General Surgery at the University of British Columbia. Since completing her training in 2005, Dr Butterworth has been in practice in Portland, OR, and we are indeed fortunate to have

recruited her back to Canada, where her skills and compassion will greatly benefit the children of BC.

Other highlights of the 2008/09 year, included a "Hernia Camp" in Uganda, in which Dr. Blair and our current senior resident, Dr. Tuan Pham were joined by BCCH colleagues in anesthesia, nursing and logistics, and performed more than 300 hernia procedures in Ugandan children at the Mulago Hospital. This project provided a direct benefit to the children who received operations, and to the Ugandan surgical and nursing staff (including trainees) who had the opportunity to work side by side the BCCH team. The BCCH-Uganda Hernia camp exemplifies the objectives of an international partnership like that between Makerere University and UBC, where compassion, commitment to sharing and educational exchange lead to measurable improvements in the quality of medical care, education and self-sufficiency of our international partners.

In late 2008, as a direct result of a directed gift from the BC mining sector, a new minimally invasive operating room dubbed a "SMART OR" opened. This state-of-the-art room brings the newest of technologies in minimally invasive surgery to the forefront for the children of BC who can now undergo full size operations through 5 mm skin incisions. The SMART OR enables high definition surgical images but also high definition, digital radiologic data which can be brought up on flat panel OR screens with the touch of a button. The room also allows high speed, high fidelity communication to other parts of the hospital and to remote "classrooms" within and outside of BC, and Canada. This quality of communication is essential for educating the next generation of pediatric surgeons, and keeps BCCH at the "cutting edge" of advances in surgical technology.

Finally, 2009 has been declared the year of surgical safety by Dr. Blair. A number of projects are underway including the adoption of the WHO Surgical Checklist in the BCCH OR and an evaluation of "safe" surgical instrumentation and practices to reduce the risk of sharps injuries to OR personnel.

## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

### Lectures:

#### Dr. Blair

1. Training Surgeons: We've got a problem. Invited lecture at the Association of Surgeons of Uganda, Kampala, Uganda, April, 2008.
2. Evaluation and Management of Thyroid Nodules and Thyroid Cancer in Children. 94th Annual American College of Surgeons Clinical Congress, San Francisco. October 2008.
3. Pet Peeves - Tips on how to optimize the referral and consultation process. BCPS Advances in Pediatrics, November 14, 2008.
4. Instructional videos in surgical technical training - improving the video atlas. 14th Annual WB and MH Chung Lectureship 2008.
5. BC Ministry of Health Services Access to Surgery Conference- Canadian Pediatric Surgical Wait Times Project, Richmond, BC, 2009.

#### Dr. Butterworth

6. Severe Television-related injury in children, Provincial Trauma Rounds, Oct 15, 2008.
7. Appendicitis, Pediatric Emergency Medicine Rounds, Nov 20, 2008.

#### Dr. Skarsgard

8. Turn Left at the Pancreas: A Roadmap to a Career as a Surgical Clinician Scientist, Jan 30, 2009. 37th Annual Meeting of the Western Student's Medical Research Forum, Carmel, CA, USA (State of the Art Lecture)
9. Choosing a career in academic surgery, Sept 25, 2008. 2nd Annual CITAC/CSCI joint meeting. (Toronto, ON, Canada)
10. The Effect of Hospital Case Volume on Survival in CDH 14th Annual MH WB Chung Research Symposium, Nov 3, 2008 (Vancouver, BC).
11. Using Networks to Improve Outcomes in Babies with Congenital Malformations, June 5, 2008 International Society for Prenatal Diagnosis 14th Annual Mtg (Vancouver, BC).

#### Dr. Murphy

12. Early experience with PET/CT in the evaluation of pediatric abdominal neoplasms. UBC Dept of Surgery Grand Rounds.

#### Dr. Webber

13. Management of thoracic trauma- UBC Department of Pediatric Emergency Medicine Update.
14. Accreditation and Internal Reviews Faculty Development: Residency program directors.

### Formal Teaching:

#### Dr. Blair

1. Undergraduate Phase IV seminars Bowel obstruction in children 3h.
2. Undergraduate Phase IV seminars Ambulatory problems in Ped Surgery 3h.
3. Undergraduate INDE 420 Pediatric GI-Clinical Skills 2h

#### Dr. Butterworth

4. Undergraduate Phase IV seminars Bowel obstruction in children 3h.
5. Undergraduate Phase IV seminars Ambulatory problems in Ped Surgery 3h.
6. Pediatric Surgery, 3rd year undergraduate lecture, July 2008.

#### Dr. Skarsgard

7. Undergraduate PBL Tutor Endocrine/Metabolism 53h.
8. Undergraduate Phase IV seminars Bowel obstruction in children 3h.
9. Undergraduate Phase IV seminars Ambulatory problems in Ped Surgery 3h.
10. Undergraduate INDE 420 Pediatric GI-Clinical Skills 2h.
11. Undergraduate students (Surgical Club) Pediatric Surgery 1h.
12. Directed Studies Supervisor Biology 448 12h (Felix Yang).
13. Postgraduate (Surgery) Core Surgery Lecture Series Research opportunities during Residency 1h.
14. Postgraduate (Pediatrics) Pediatric Residents Core lecture series The Acute Abdomen 1h.
15. Postgraduate (Pediatrics) Pediatric Residents Core lecture series Abdominal Masses 1h.

1. Postgraduate (Pediatrics) Pediatric Oncology Fellows Core Course Solid Tumors of Childhood 1h Postgraduate (Nursing) 3R Education Day Abdominal Wall Defects 2h.

#### Dr. Murphy

2. Undergraduate Phase IV seminars Bowel obstruction in children 3h.
3. Undergraduate Phase IV seminars Ambulatory problems in Ped Surgery 3h.
4. Undergraduate INDE 420 Pediatric GI-Clinical Skills 2h.

#### Dr. Webber

5. Undergraduate Phase IV seminars Bowel obstruction in children 3h.
6. Undergraduate Phase IV seminars Ambulatory problems in Ped Surgery 3h.
7. Undergraduate INDE 420 Pediatric GI-Clinical Skills 2h.
8. Undergraduate PBL Tutor Pulmonary Block, First Year Medicine 12h.
9. Undergraduate PBL Tutor PrinC Block, First Year Medicine 21h.
10. Undergraduate Lecture and exam Surgery 430:Pediatric Surgery (lectures and oral examinations) 8h.
11. Postgraduate Lecture Professionalism Lecture: Core Surgery Residents 1h.
12. Postgraduate Exam Core Surgery 2.5h.



"2009 has been  
declared the year  
of surgical safety  
by Dr. Blair."

#### PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. Lam MCW, Yang PT, Skippen PW, Kissoon N, **Skarsgard ED**. Abdominal compartment syndrome complicating pediatric extracorporeal life support: diagnostic and therapeutic challenges. *Anaesth Intensive Care* 36: 726-31, 2008.
2. Boutros J, Bond M, Beaudry PP, Blair GK, **Skarsgard ED**. Case selection in minimally invasive treatment of neuroblastoma. *Pediatr Surg Int* 24:1177-80, 2008.
3. Weinsheimer RL, Yanchar NL, Bouchard SB, Kim PK, Laberge JM, **Skarsgard ED**, Lee SK, McMillan D, von Dadelszen P, and



the Canadian Pediatric Surgery Network. Gastroschisis closure-does method really matter? *J Pediatr Surg* 43: 874-8, 2008.

4. **Skarsgard ED**, Claydon J, Bouchard S, Kim PCW, Laberge JM, McMillan D, von Dadelszen P, Yanchar N and the Canadian Pediatric Surgery Network. CAPSNET: A Population-based Pediatric Surgery Network and Database for analyzing Surgical Birth defects. The first 100 cases of Gastroschisis. *J Pediatr Surg* 43: 30-4, 2008.
5. Lam CW, Klassen AF, Montgomery CJ, LeBlanc JG, **Skarsgard ED**. Quality of Life Outcomes following surgical correction of pectus excavatum: A comparison of the Ravitch and Nuss procedures. *J Pediatr Surg* 43:819-25, 2008.
6. Heran MKS, Baird R, Blair GK, **Skarsgard ED**. Topical Mitomycin-C for recalcitrant esophageal strictures: A novel endoscopic/fluoroscopic technique for safe endoluminal delivery. *J Pediatr Surg* 43: 815-8, 2008.
7. Baird R, MacNab YC, **Skarsgard ED** and the Canadian Pediatric Surgery Network. Mortality Prediction in Congenital Diaphragmatic Hernia. *J Pediatr Surg* 43: 783-787, 2008.
8. Klassen AF, Stotland MA, Skarsgard ED, Pusic AL. Research in Pediatric Plastic Surgery. *Clin Plast Surg* 35: 251-67, 2008.
9. Hasosah M, Lemberg DA, **Skarsgard ED**, Schrieber R. Congenital short bowel syndrome: A case report and review of the literature. *Can J Gastroenterol* 22: 71-4, 2008.
10. Hoang L, Yang PT, Huang L, Jia WW, **Skarsgard ED**. Evaluation of chitosan as a gene transfer agent to fetal murine organs and HEK293T cells in vitro, and fetal organs following in utero gene delivery. *J Investig Med* 56(1):122, 2008.
11. Pressey T, **Skarsgard E**, Claydon J, von Dadelszen P. CAPSNet: Antenatal ultrasound detection of abnormal amniotic fluid volume predicts adverse perinatal outcome in gastroschisis. *Prenat Diagn* 2008; 28: S2.
12. Yang PT, **Skarsgard E**, Jia WW. In utero gene replacement therapy using chitosan-DNA nanoparticles and  $\Omega$ C31 integrase. *Prenat Diagn* 2008; 32: S6.
13. Yang P, **Skarsgard E**, Jia W. Chitosan-mediated in utero Gene Therapy for Cystic Fibrosis. *J Investig Med* 57 (1): 97, 2009.

14. Wong A, Pham TH, Lavoie P, Sherlock R, **Skarsgard E, Blair GK**. Predicting the likelihood for Surgical Intervention in Neonatal Necrotizing Enterocolitis using a Bayesian Network Model. *J Investig Med* 57 (1): 233, 2009.
15. **Blair GK**. Children are waiting for care and answers. *CMAJ* 179: 983-4, 2008.
16. Collins CL, Yeong SK, Duffy DJ, **Blair GK**. A roadmap to global health education: a student-led initiative. *Can J Surg* 51: 308-16, 2008.
17. **Murphy JJ**, Swanson T, Ansermino M, Milner R. The frequency of apneas in premature infants after inguinal hernia repair: do they need overnight monitoring in the intensive care unit? *J Pediatr Surg* 43:865-8, 2008.
18. **Murphy JJ**, Tawfeeq M, Chang B, Nadel H. Early experience with PET/CT in the evaluation of pediatric abdominal neoplasms. *J Pediatr Surg* 43: 2186-92, 2008.
19. Mills JL, Konkin DE, Milner R, Penner JG, Langer M, **Webber EM**. Long-term bowel function and quality of life in children with Hirschsprung's disease. *J Pediatr Surg* 43: 899-905, 2008.
20. **Webber EM**, Rungta K, Sivertz K. Expansion of postgraduate medical education. *BCM J* 50: 384-387, 2008.

## HONOURS AND AWARDS

Recipient	Name of Award	Date Received
Skarsgard, ED	Faculty of Medicine Distinguished Achievement Award for Overall Excellence; April 1, 2007-Mar 31, 2008. UBC Faculty of Medicine, University of BC	May, 2008
Skarsgard, ED	James IV Traveling Award, James IV Surgical Society	May, 2008
Skarsgard, ED	Richard J. Finley Senior Research Scholar Award	June, 2008
Blair, GK	Mentor of the Year, RCPSC, Region 1	March, 2008
Blair, GK	Excellence in Education Award with Distinction, BCCH	May, 2008

## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
CAPSNet-Establishing Best Practices for Gastroschisis and Congenital Diaphragmatic Hernia	Skarsgard, ED	Brindle/UofC, Kim/UofT, Lee/UofT, Laberge/McGill, Bouchard/Uof Montreal, Yanchar/Dalhousie	CIHR	\$146,000
CIHR team in Maternal - Infant Care	Lee, SK	Skarsgard, ED	CIHR	\$560,000
Canadian Perinatal Surgical Network: CAPSNET	Skarsgard, ED	Brindle/UofC, Kim/UofT, Lee/UofT, Laberge/McGill, Bouchard/Uof Montreal, Yanchar/Dalhousie	CIHR	\$95,551
Non-viral vector mediated in utero gene therapy in mice: A novel approach to the treatment of prenatally diagnosed cystic fibrosis	Skarsgard, ED	Jia, WW	Canadian Cystic Fibrosis Foundation	\$49,900
Teaching and Learning Enhancement Fund	Blair, GK	Duffy, DJ, Masterson, J, Zappavigna	UBC	\$14,850
Auxiliary to BC Children's Hospital Foundation Education Grant	Blair, GK	Duffy, DJ, Reimer, E, Dunlop J, Lore D	BCCH Auxiliary	\$2,500
Canadian Association of Pediatric Surgeons Education Grant	Pham, T		Canadian Association of Pediatric Surgeons	\$1,500
CFRI Summer Student Travel Awards	Wong, A		CFRI	\$1,000
Canadian Pediatric Surgical Chiefs of Canada Surgical Wait time project	Blair, GK		Health Canada	\$127,215

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Tuan Pham	Clinical Resident, Pediatric General Surgery
Andre Hodder	Clinical Resident, Pediatric General Surgery
Knowlton (GS PGY 2)	Clinical Resident, Core Surgery
Hu (GS PGY 2)	Clinical Resident, Core Surgery
Poon (GS PGY 2)	Clinical Resident, Core Surgery
Jansen (PS PGY 1)	Clinical Resident, Core Surgery
Merchant (GS PGY 2)	Clinical Resident, Core Surgery
Ho (PS PGY1)	Clinical Resident, Core Surgery
Johner (GS PGY 2)	Clinical Resident, Core Surgery
Aslani (GS PGY 2)	Clinical Resident, Core Surgery
Saunders (PS PGY 1)	Clinical Resident, Core Surgery
Mariana Deevska	Clinical Resident, Pediatrics
Gustavo Pelligra	Clinical Resident, Pediatrics
Kathryn Leccese	Clinical Resident, Pediatrics
Seemi Essa	Clinical Resident, Pediatrics
Meghan Grant	Clinical Resident, Pediatrics
Ruchika Shukla	Clinical Resident, Pediatrics
Kelley Zwicker	Clinical Resident, Pediatrics
Warda Toma	Clinical Resident, Pediatrics
Sarah Freedman	Clinical Resident, Pediatrics
Yasaman Rajabieh Shayan	Clinical Resident, Pediatrics
Anne Marie Jekyll	Clinical Resident, Pediatrics
Kelly Luu	Clinical Resident, Pediatrics
Sara Leo	Clinical Resident, Pediatrics

John Boutros (GB)	Research Resident
Jessica Mills (ES/EW)	Research Resident
Monica Langer (GB)	Research Resident
Todd Swanson (JM)	Research Resident
Leigh Jansen (ES)	Research Resident
Chris Stevens (GB)	Research Student
Patrick Yang (ES)	Research Student
Justin Chen (ES)	Research Student
Maxim Sun (ES)	Research Student
Alex Wong (GB)	Research Student

## COMMITTEE PARTICIPATION

### Dr. Blair

1. 2004 - present Pediatric Surgical Chiefs of Canada
2. 2004 - present Pediatric Surgical Chiefs of Canada (chair)
3. 2006 - present Royal College of Physicians and Surgeons of Canada Specialty Committee in Pediatric General Surgery (chair)
4. 2007 - present President, Canadian Association of Paediatric Surgeons
5. 2008 - present American Pediatric Surgical Association, Quality & Safety Committee
6. 2008 - present American Pediatric Surgical Association, Workforce Committee
7. 2003 - present Surgical Services Advisory Committee
8. 2006 - present Pediatric Surgical Executive Committee (chair)
9. 2006 - present Surgical Data Management Committee

- 10. 2005 - present OPSEI executive committee
- 11. 2007- present BCCHF Board of Directors
- 12. 2006 - present Government Relations Committee
- 13. 2004 - present Child Health BC Executive Committee
- 14. 2008 - present Cardiac Surgery Selection committee (chair)
- 15. 2006 - present Provincial Surgical Services Project
- 16. 2008 - present Child Health Management Team
- 17. 2002 - present BCCH Bylaws Committee
- 18. 2006 - present Branch of International Surgery

#### Dr. Butterworth

- 19. 2008-present Trauma Steering Committee, BCCH, general surgical representative
- 20. 2008-present Complex Nutrition Team, BCCH, surgical representative
- 21. 2008-present Children's Oncology Group, BCCH, general surgical representative
- 22. 2008-present General Surgery residency Education Committee, UBC
- 23. 2008-present Surgical Oncology Network, chair, Pediatric Tumor Group
- 24. 2008-present Canadian Association of Pediatric Surgeons, program committee

#### Dr. Murphy

- 25. 2004-present Pharmacy and Therapeutics Committee
- 26. 2006-present Surgical Services Advisory Committee
- 27. 2006-present Child Health Quality of Care Committee
- 28. 2007-present Canadian Association of Pediatric Surgeons program committee

#### Dr. Skarsgard

- 29. 2004-present Children's Oncology Group, UBC representative
- 30. 2006-present RCPSC Program Directors' Committee
- 31. 2006-present RCPSC Examination Board in Pediatric General Surgery

- 32. 2006-present Pediatric General Surgery Education Committee (chair)
- 33. 2006-present North American Fetal Therapy Network
- 34. 2002-present Surgical Advisory Committee (UBC)
- 35. 2007-present Centre for Surgical Research, UBC (co-chair)
- 36. 2008-present BCCHF Allocations Committee
- 37. 2008-present Associate Chair Academic Affairs, Dept of Pediatric Surgery, BCCH
- 38. 2006-present BCCH Surgical Services Advisory Committee (chair)
- 39. 2003-present BCCH Mortality Review Committee
- 40. 2003-present BCCH ECLS program Committee (surgical chair)
- 41. 2006-present BCCH Medical Advisory Committee
- 42. 2008-present CFRI Acute Care/Technology Research Cluster (chair)
- 43. 2008-present CFRI Scientific Steering Committee
- 44. 2003-present Canadian Congenital Anomalies Surveillance Network (Health Canada)
- 45. 2006-present American Pediatric Surgical Association Education Committee
- 46. 2006-present American Pediatric Surgical Association Program Directors Committee

#### Dr. Webber

- 47. 2006-present Postgraduate Medical Education: Assistant Dean
- 48. 2000-present Pediatric General Surgery Residency Education Committee
- 49. 2008-present Faculty of Medicine Residency Education Committee (and Executive Committee)
- 50. 2006-present Residency Internal Review Committee (Chair)
- 51. 2006-present Resident Allocation Committee (Chair)
- 52. 2006-present Patient Simulation Technology Working Group (Chair)
- 53. 2006-present Basic Clinical Year Residency Committee (Chair)
- 54. 2004-present Resident Wellness Committee (Chair)
- 55. 2006-present Integrated Clerkship Committee
- 56. 2006-present Gender Equity Committee
- 57. 2006-present UBC/BCMA Clinical Teaching Subcommittee (Co-chair)



58. 2000-present Mortality Review Committee, Children's and Women's Health Centre
59. 2002-present Centre for International Child Health, Children's and Women's Health Centre
60. 2006-present UBC and BC Ministry of Health Physician Planning Task Force
61. 2007-present Accreditation Committee
62. 2006-present Royal College of Physicians and Surgeons of Canada General Surgery Specialty Committee (Deputy Chair 2008-present)
63. 2008-present Royal College of Physicians and Surgeons of Canada Surgical Foundations Advisory Committee
64. 2003-present Pacific Association of Pediatric Surgeons Publications Committee
65. 2009-present Pacific Association of Pediatric Surgeons Program Committee

## PROJECTS AND INITIATIVES IN PROGRESS

### Dr. Blair

#### Thyroid disease in children

A grant proposal for a 3 year cross-Canada prospective study to be funded for \$97,000 has been submitted to the C17 Research Network: "The Canadian Pediatric Thyroid Nodule (CaPTN) Study II: The prospective Evaluation of Clinical Guidelines for Children with Thyroid Nodules" I am a Co-PI.

#### Access to Surgery

I am a CoPI on the Canadian Pediatric Surgical Wait Times Project- Stage II. The project is funded for \$9.3 million from Health Canada and is underway looking at surgical access performance, surgical capacity, and other factors in all 16 Canadian Pediatric Academic Health Centres as well as many community hospitals that provide pediatric surgical care. In BC we have engaged more than 12 community hospitals in this project.

### Dr. Butterworth

1. Is the need to extend fascial opening in gastroschisis patients associated with underlying intestinal complications?

Proposal submitted, an evaluation of the CAPSNET.

2. Preoperative predictors of unfavorable outcome in CDH- impact of persistent pulmonary hypertension. CAPSNET.
3. Video analysis of sharps safety practices among surgical residents. Proposal submitted.
4. Transfusion practices among pediatric trauma patients in intensive care settings. Proposal submitted.
5. Video Playback: Coaching Surgical Trainees to Olympic Levels. Paper in draft form.
6. Television tip-over injuries in the pediatric population – analysis of the magnitude and trends. Proposal completed, ethics pending.
7. Management of penetrating pediatric abdominal injuries in a tertiary pediatric hospital compared to adult-focused institutions. Proposal completed, ethics pending.

### Dr. Skarsgard

#### CAPSNET

The Canadian Pediatric Surgery Network collects standardized data on 2 rare birth defects (gastroschisis and congenital diaphragmatic hernia) from all 16 pediatric surgical centres in Canada. It has been funded by CIHR since 2005, and was the subject of a renewal operating grant submitted in March 2009 (decision pending). The next phase of CAPSNet will add 36 month survivor followup so that the quality of survivorship may be better understood. There are also plans to expand the conditions evaluated by CAPSNet to include congenital lung lesions and neonatal tumors.

#### Fetal Gene Therapy in a mouse model

Ongoing research in this field is evaluating non-viral vectors of in utero gene transfer. Future plans are to evaluate long term reporter gene expression in survived animals, and to perform gene transfer using the replacement gene in a CF disease murine model.

### Dr. Webber

I have been Assistant Dean for Postgraduate Medical Education in the Faculty of Medicine since April 1, 2007. This was a newly created position at that time. In this capacity I have assisted the

Associate Deans for Postgraduate Medical Education in the full spectrum of their activities. My role has evolved significantly over the past year. Dr. Kristin Sivertz, one of the two Associate Deans for Postgraduate Medical Education, became the Senior Associate Dean, Education within the Faculty of Medicine. Over the past year her activities as Senior Associate Dean, Education increased to the point that her activities in the Postgraduate Education Office had to be significantly decreased. With that change my role has increased such that I now share the activities in Postgraduate Education fairly equally with the other Associate Dean, Dr. Kamal Rungta. I co-chair the Faculty Residency Education Committee with Dr. Rungta, and I chair a number of subcommittees including the Internal Reviews, the Allocations Committee, and the Resident Wellness Committee.

This past year I convened and chaired a working group tasked with looking at the place of simulation technology in education in the Faculty of Medicine. The report of this group, "Patient Simulation Technology, Review and Recommendations" was recently produced. I hope this report will provide a foundation on which to build a simulation program that is optimally integrated into the educational programs across the Faculty of Medicine.



# THE DIVISION OF PEDIATRIC NEUROSURGERY

"The Division performs approximately 300 neurosurgical operations yearly, and addresses the full range of neurosurgical conditions in children."



**TEAM: 2008-09****Faculty:****Dr. Paul Steinbok**  
Division Head**Dr. D. Douglas Cochrane****Dr. Ashutosh Singhal****Administrative Staff:****Ms. Helen McGregor****Research Supervisor:****Dr. Vesna Popovska****Research Assistant:****Mr. Tim Bowen-Roberts**

"The Division currently comprises of three full-time pediatric neurosurgeons: Dr. Paul Steinbok who is head of the division, Dr. D. Douglas Cochrane and Dr. Ash Singhal."

## HIGHLIGHTS AND ACHIEVEMENTS

In 2008, Dr. Steinbok was Chair of the Education Committee of the Pediatric Section of the American Association of Neurological Surgeons and Secretary of the International Society for Pediatric Neurosurgery. He participated in pediatric educational courses in Italy and South Africa and was invited to give the Bhagwati oration at the Indian Society for Pediatric Neurosurgery in Coimbatore, India. Dr. Cochrane resigned from his administrative position with the PHSA to take on a new role as Chair of the BC Patient Safety and Quality Council and Patient Safety and Quality Office for British Columbia. Dr. Ash Singhal has continued in his role as Medical Director of Trauma, Provincial Pediatric Trauma Program at BCCH and has been involved in a number of provincial initiatives with respect to trauma. With the help of the Jonathan Lawson Endowed Fellowship in Neuroscience, in 2008 we were able to provide pediatric neurosurgical fellowship training for 2 neurosurgeons: Dr. Shafqat Bukhari from Manchester, UK and Dr. David Anderson from Perth, Australia.

Our annual Visiting Professor in Pediatric Neurosurgery for 2008 was Professor Rick Abbott from New York, USA.

### PRESENTATIONS, LECTURES, AND FORMAL TEACHING

#### Lectures:

##### Dr. Singhal

1. Rare Diseases Foundation – A New Research Initiative. OPSEI (Pediatric Surgery) Rounds, October 2008.
2. Invited Talk – Functional Implications of Brain Tumor Surgery, BC Cancer Agency "Brain Tumor Conference". October 4, 2008.

##### Dr. Steinbok

3. Invited speaker, ASPN annual meeting, Cabo San Lucas. A proposed multicenter study of calvarial eosinophilic granuloma, Feb 5, 2008.
4. Visiting Professor, University of San Antonio, San Antonio, Texas. Occult tethered cord syndrome: from clinical question to randomized controlled trial, Feb 15, 2008.



5. Invited faculty, European Society for Pediatric Neurosurgery course, Vietri sul Mare, Italy, 1) Medical treatment of spasticity 2) Rhizotomy - technical demonstration, June 2 – 6, 2008.
6. Faculty member - ISPN course – Capetown, South Africa 1) Craniosynostosis 2) Minor Traumatic brain injury, October 11, 2008.
7. Invited speaker – ISPN annual meeting, Capetown, South Africa. Does neurophysiological guidance contribute to the outcome in selective dorsal rhizotomy?: implications to the application of the procedure, October 13, 2008.
8. Bhagwati oration – Indian Society for Pediatric Neurosurgery. Technological advances in pediatric neurosurgical operations: towards improved precision. Coimbatore, India, November 7, 2008.
9. Invited speaker - Indian Society for Pediatric Neurosurgery. 1) Occult tethered cord syndrome 2) Sagittal synostosis, November 8-9, 2008.

#### Formal Teaching:

##### Dr. Singhal

1. Undergraduate Phase IV Outpatient 4h.
2. Undergraduate Problem Based Learning (Growth and Development Block – April 2-May 4, 2007 - “PBL Tutor”: direct medical student teaching 4h; formal preparatory sessions 3h; formal Tutor meetings 6h.
3. Postgraduate Epilepsy/oncology conference/Spinal Cord clinic/ Neurooncology clinic 45h.
4. Postgraduate Formal teaching sessions (Mondays 0730-0900) 42h.
5. Postgraduate Neurosurgery outpatient clinics 120h.
6. Postgraduate Seminars 5h.
7. Postgraduate Research meetings 6h
8. Health Research Design” – 1 hour talk, plus 1 hour workshop, September 2, 2008. (Introduction to research methodology for Pediatric Residents at UBC/BCCH)

##### Dr. Cochrane

9. Undergraduate Phase IV Outpatient 150h.
10. Postgraduate Myelomeningocele/oncology conference/clinic 80h.

11. Postgraduate Formal teaching sessions 86h.
12. Postgraduate Neurosurgery outpatient clinics 125h.
13. Postgraduate Seminars 1 + Preparation.
14. Postgraduate Research meetings 12 (UBC and MOMS).
15. Professor rounds 4 + preparation.
16. Mentor for 8 student group, Informal contacts over the year 4h.

##### Dr. Steinbok

17. Undergraduate Phase IV Outpatient 84h.
18. Postgraduate clinics 147h.
19. Postgraduate Formal teaching sessions 40h.
20. Postgraduate Seminars 2h.
21. Professor rounds 4h.

#### PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. **Singhal A**, Cochrane DD. Optic nerve sheath fenestration and bilateral expansile cranioplasty for raised intracranial pressure in craniometaphyseal dysplasia: a case report. *Childs Nerv Syst.* 2008 Apr;24(4):521-4.
2. **Singhal A**, Steinbok P: Surgical management of growing skull fracture: technical note. *Child Nerv System* 2008 May;24(5):605-7. Epub 2007 Dec 21.
3. Kulkarni AV, **Cochrane DD**, McNeely DP, Shams I. Medical, social, and economic factors associated with health-related quality of life in Canadian children with hydrocephalus. *J Pediatr.* 2008 Nov;153(5):689-95.
4. Kulkarni AV, **Cochrane DD**, McNeely DP, Shams I. Comparing children's and parents' perspectives of health outcome in pediatric hydrocephalus. *Develop Med Child Neurol.* 2008 Aug;50:587-92.
5. Gupta A, Vitali AM, Rothstein R, **Cochrane DD**. Resolution of syringomyelia and Chiari malformation after growth hormone therapy. *Child's Nerv Syst* 2008, 24:1345-8.
6. Singhal A, **Cochrane DD**. Optic nerve sheath fenestration and bilateral expansile cranioplasty for raised intracranial pressure in craniometaphyseal dysplasia: a case report. *Childs Nerv Syst.* 2008 Apr;24:521-4.

7. Doan QH, Kissoon N, Dobson S, Whitehouse S, **Cochrane D**, Schmidt B, Thomas E. A Randomized, Controlled Trial of the Impact of Early and Rapid Diagnosis of Viral Infections in Children Brought to an Emergency Department with Febrile Respiratory Tract Illnesses. *J Pediatr*. 2008 Sep 23.
8. Hutchison JS, Ward RE, Lacroix J, Hébert PC, Barnes MA, Bohn DJ, Dirks PB, Doucette S, Fergusson D, Gottesman R, Joffe AR, Kirpalani HM, Meyer PG, Morris KP, Moher D, Singh RN, Skippen PW, **Cochrane D**; Hypothermia Pediatric Head Injury Trial Investigators and the Canadian Critical Care Trials Group. Hypothermia therapy after traumatic brain injury in children. *N Engl J Med*. 2008 Jun 5;358(23):2447-56. (Collaborator).
9. **Cochrane DD**, King C, Beauchamp R, MacNeily A. Spasticity in Spina Bifida, In: *The Spina Bifida : Management And Outcome*. Ozek M, Cinalli G, Maixner WJ. Milan, Verlag Springer, 2008 (May)
10. Guilcher G, Henderson G, Goddard K, **Steinbok P**, Bond M: Successful Treatment of a Child with a Primary Intracranial Rhabdomyosarcoma with Chemotherapy and Radiation Therapy. *J Neurooncol*. 2008 Jan;86(1):79-82.
11. Johnston DL, Keene D, Lafay-Cousin L, **Steinbok P**, Sung L, Carret A-S, Crooks B, Strother S, Wilson B, Odame I, Eisenstat DD, Mpofu C, Zelcer S, Huang A, Bouffet E: Supratentorial Primitive Neuroectodermal Tumors: A Canadian Pediatric Brain Tumor Consortium Report. *J Neurooncol*. 2008 Jan;86(1):101-108.
12. Gan P, Connolly M, **Steinbok P**: Epilepsy associated with a cerebellar arachnoid cyst: seizure control following fenestration of the cyst. *Childs Nerv Syst*. 2008 Jan;24(1):125-34.
13. **Steinbok P**: Multiple short-segment laminoplasties in children: a novel technique to avoid postoperative spinal deformity. *Childs Nerv Syst*. 2008 Mar;24(3):369-72.
14. Singhal A, **Steinbok P**: Surgical management of growing skull fracture: technical note. *Child Nerv System* 2008 May;24(5):605-7.
15. Schrader DV, **Steinbok P**, Connolly M: Urgent, Resective Surgery for Medically Refractory, Convulsive Status Epilepticus. *European Journal of Paediatric Neurology* 2009 Jan;13(1):10-7.
16. Lam FC, Irwin BJ, Poskitt KJ, **Steinbok P**: Cervical spine instability following cervical laminectomies for Chiari II decompression: a retrospective cohort study. *Childs Nerv Syst*. 2009 Jan;25(1):71-6.
17. Vitali AM, **Steinbok P**: Depressed skull fracture and epidural hematoma from head fixation with pins for craniotomy in children. 2008 Mar;24(3):369-72.
18. Sherman EM, Connolly MB, Slick DJ, Eyrl KL, **Steinbok P**, Farrell K: Quality of Life and Seizure Outcome After Vagus Nerve Stimulation in Children With Intractable Epilepsy. *J Child Neurol*. 2008 May 12.
19. Ou CH, Kent SK, Hammond AM, Bowen-Roberts T, **Steinbok P**, Warren DT. Morphine infusions after pediatric cranial surgery: a retrospective analysis of safety and efficacy. *Can J Neurosci Nurs*. 2008;30(3):21-30.

#### HONOURS AND AWARDS

Recipient	Name of Award	Date Received
Steinbok, P	Bhagwati orator November 2008 – annual meeting of the Indian Society for pediatric Neurosurgery	November 2008
Steinbok, P	Canadian Association of Neurosciences Nurses Codman Award – co author and supervisor of award winning presentation	June 2008



## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
Thrasher Research Fund Apolipoprotein E and Pediatric Traumatic Brain Injury: A Prospective Observational Study	Singhal, A		Thrasher Research Fund	\$26,741
A National Study - Analysis of Pediatric Injuries Related to Child Restraint Seats: Are Children at Higher Risk for Injury Outside the Vehicle Than Inside	Singhal, A		British Columbia Children's Hospital Telethon Projects Award	\$23,212
Unclogging the Pediatric Emergency Room: Impact of Rapid Viral Diagnostics	Cochrane, D	Thomas E, Dobson S	MSRHF Operating Grant	\$100,000
Intensive Care Unit Patient Safety Team	Cochrane, D	Dodek P, Ayas N	MSFHR Team Grant	\$160,000
Treatment of Persistent Urinary Incontinence in Children	Steinbok , P, MacNeily, A		BC Medical Services Foundation	\$49,983
A Registry for Comparing Catheter-Related Infection Rates Among Various Shunt Systems in the Treatment of Hydrocephalus	Steinbok , P		Codman Company	\$350,000 U.S
Fellowship in Pediatric Neurosurgery 2008/2009	Steinbok , P		Fellowship allocation Committee at BC Children's Hospital	\$66,700
Cross Canada study of Thalamic Tumors in Children	Steinbok , P		Brain Tumor Foundation of Canada	\$25,000

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Sal Di Maio	Resident (AS)
Peter Gooderham	Resident (AS)
Ziad Abu Sharar	Resident (AS)
Mayada Helal	Resident (AS)
Shafqat Bukhari	Fellow (AS)
David Anderson	Fellow (AS)
Kaivon Pakzad-Vaezi	Summer Research Student (AS)
Tia Liu	Summer Research Student (AS)
Tara Adirim	Summer Research Student (AS)
Hu (GS PGY 2)	Clinical Residents, Core Surgery (AS)
Bogarin R	Endocrinology Fellow (PS)
Kariyattil R	Fellow (PS)
Gan P	Fellow (PS)
Vitali A	Fellow (2 projects) (PS)
Warren D	Resident (PS)
Lam F	Resident (PS)
Di Maio S	Resident (SP)
Sal Di Maio	Resident (DC)
Peter Gooderham	Resident (DC)
Ziad Abu Sharar	Resident (DC)
Mayada Helal	Resident (DC)
Shafqat Bukhari	Fellow (DC)
David Anderson	Fellow (DC)
Janice Butler	Thesis Advisor - Master of Arts in Leadership and Training, Royal Roads University, Victoria BC (DC)

## COMMITTEE PARTICIPATION

## Dr. Singhal

1. Rare Diseases Foundation of British Columbia – co-chair; signing officer for research grant allocation.
2. Journal Manuscript Reviews, Childs Nervous System  
American Journal of Perinatology
3. BCCH Quality of Care Committee - member.
4. BCCH Surgical Quality Committee - member.
5. BCCH Trauma Steering Committee - chair.
6. BCCH Strategic Planning Committee - member.

## Dr. Cochrane

7. MFMU Network Advisory Board for MOMS study.
8. MOMS Shunt Review Committee 2008.
9. Chair British Columbia Patient Safety and Quality Council.
10. Patient Safety Goals 2008 for the Province of British Columbia.
11. Program Committee Halifax 9.
12. Chair of the British Columbia Patient Safety Quality Council.
13. Chair of the Board Canadian Patient Safety Institute.
14. Provincial patient Safety Officer, British Columbia.
15. Review Panels  
Pediatric Neurosurgery  
Neurosurgery  
Canadian Journal of Neurological Sciences  
American Journal of Sports Medicine  
Child's Nervous System  
Number of papers reviewed - 3

## Dr. Steinbok

16. Editorial Boards  
Childs Nervous System  
Canadian Journal of Neurological Sciences  
Journal of Neurological Sciences (Turkish)  
Journal of Pediatric Neurosciences (Indian)
17. Review Panels  
Childs Nervous System



Neurosurgery  
 Canadian Journal of Neurological Sciences  
 Pediatrics  
 Nature Clinical Practice Neurology  
 Developmental Medicine and Child Neurology  
 Number of papers reviewed 14

18. Grant Reviews  
 Development in children with plagiocephaly. Channel 7 Research Foundation, Australia
19. Chair, Education Committee – Pediatric Section AANS
20. International Society for Pediatric Neurosurgery  
 Member, Executive Committee  
 Secretary
21. Medical Advisory Board Member – Best Doctors of Canada

## PROJECTS AND INITIATIVES IN PROGRESS

### Dr. Singhal

1. Apolipoprotein E and Pediatric Traumatic Brain Injury: A Prospective Observational Study. Singhal A, Steinbok P, Cochrane DD, Arbour L (I am the Principal Investigator. We have received funding as listed below. The study has been approved by the research ethics committee and UBC ethics review committee, and has enrolled 62 patients.)
2. Analysis of Pediatric Injuries Related to Child Restraint Seats – A National Study. Singhal A, Desapriya E, Pike I. Grant funding received from BC Telethon Funding, study presently underway (ethics in place, presently collecting data from multiple Canadian Pediatric Trauma sites).
3. In Situ Autologous Lateral Split Bone Cranioplasty for Reconstruction of Skull Defect: A Technical Note. Gan P, Singhal A (manuscript submitted for publication).
4. Magnetic Resonance Imaging Findings Associated with Papilledema in a Child with a Posterior Fossa Brain Tumor – Case Report. Pakzad-Vaezi K, Singhal A, Sargeant M, Cochrane D. (manuscript submitted for publication).
5. Analysis of Trends in Sports Related Pediatric Injuries. Pakzad-

Vaezi K, Singhal A. (manuscript submitted for publication).

6. Predictors of Outcomes after Surgical Management of Middle Cranial Fossa Arachnoid Cysts. Jankovic B, Singhal A, et al. Data collected, analyzed. Study on hold presently.
7. An Analysis of Survival Rates in Children with Posterior Fossa Ependymoma; Is Near-Total Excision as Favourable as Total Excision? Singhal A, Ailon T, Hukin J. Data collected, abstract presented at ISPNO 2008 conference, national study proposed to look at data across Canadian Pediatric Neurosurgery centres.
8. BC Inflicted Childhood Neurotrauma Surveillance Project. Pike I, Singhal A, Barr R. (I am a co-Principal Investigator. We have obtained institutional ethical approval, and have commenced the prospective surveillance study, with 28 months of surveillance data.).
9. Hypothermia in Traumatic Brain Injury in Children (HITBIC): multi-centre randomized trial of which BC Children's is a potential site, ethics submission submitted. I will function as site investigator.
10. Burden of Injury – a longitudinal prospective study. Brussoni M, Hameed M, Towner E, Olsen L, Singhal A, Goldman R. I participated in the planning and grant writing for this prospective study examining the long-term impact of traumatic injury on multiple patient outcome factors. After an unsuccessful CIHR application in Fall 2007, the study is being prepared for resubmission for funding.
11. Pediatric patients with low neurological status and AVM hemorrhage: an outcome analysis. Adirim T, Singhal A, Steinbok P, Cochrane D. I supervised Tara Adirim this summer, and the project has been completed, accepted for publication at AANS meeting in Spring 2009, and a manuscript has been prepared for submission.
12. Informed consent in Pediatric Neurosurgery. Pakzad-Vaezi K, Singhal A, Steinbok P, Cochrane D. I supervised medical student Kaivon Pakzad-Vaezi this past summer, and we designed a prospective randomized study to assess patient retention of surgical consent information, with and without the use of an itemized consent checklist. The ethics is presently pending.

### Dr. Cochrane

13. Cochrane DD. Using the Canmeds framework and Alberta College assessment tools for physician in-depth evaluation – Implemented for in depth review in PHSA.

14. Cochrane DD. Surgical Expertise: What is it, how do we measure it and how do we prepare the next generation of providers.
15. Cochrane DD. Cognitive and Affective Error in the Safety of Patient Care – research completed and rounds presented.
16. Cochrane DD. Temporary shunting for arachnoid cysts. concept development.
17. Steinbok P, Lam F, Cochrane DD. Cervical stability after surgery for Chiari II malformation.
18. Cochrane DD. Patient safety – the role of surgical mentorship for new appointees. Concept development.
19. Cochrane DD. Use of MRS in the definition of tethered cord syndrome. Concept development.
20. Cochrane DD. Outcomes for patients with hydrocephalus – multicenter study lead by HSC.
21. Cochrane DD. Surgical waitlist management for pediatric surgery – collaboration with G Blair and C O'Neill and CAPHC.
22. Cochrane DD et al, Lewis S. Evolution of skull shape change using surface digitization – relationship to developmental and neuropsychiatric disability.
23. Cochrane DD et al. Morphometric changes in the lateral ventricular system.
24. Magaldi M, Steinbok P, Cochrane DD. Hydranencephaly and choroid plexus coagulation – clinical series – paper completed and submitted.
25. Selby K, Cochrane DD et al. Otogenic venous thrombosis – literature review.
26. Cochrane DD, Drake J. Outcome measures in pediatric neurosurgery - literature review.
27. Cochrane DD, Gan P, Anderson D. Cerebellar mutism: impact of differences in clinical practice.
28. Cochrane DD. Practice patterns in Pediatric Neurosurgery 2008 – data analysis.
29. Doan, QH, Kissoon N, Thomas E, Dobson S, Whitehouse S, Cochrane D, MD, Schmidt B. A randomized controlled trial of decision making based upon early and rapid diagnosis of respiratory viral infections (VIRAP) in children presenting to the ED with a flu-like illness. (Submitted for publication and for knowledge translation roll-out).
30. Ansermino M, Shaw N, Carr R, Taylor A, Daniels J, Cochrane DD. The bedside observer: using patient and family observations to enhance patient safety. CIHR granted and in process.
31. Collett JP, Ansermino M, Carleton B, Cochrane D, Espezel H, Junker A, Leung K. Improving patients' safety in the context of clinical research – application submitted to CPSI.
32. Sheps S, Cochrane D, Gustavson K, Djurdjev O, Goldman R, Taylor A, Hait H, Craig S, Greco P. A Patient Experience Program (PEP) for Multi-Specialty Sites: A Demonstration Project at Children's & Women's Health Centre. Application to CPSI.
33. Junker A, Barka E, Cochrane DD. Ghost charts in pediatric ambulatory care – data collection in process.
34. Cochrane D, et al. Brain retraction and injury – patterns of practice survey.
35. Cochrane D et al. Cerebral venous anomalies and relationship to CSF circulation disturbances.
36. Cochrane D, Kalkarni A, MacNeily D. Outcomes of hydrocephalus using the hydrocephalus outcome questionnaire.
37. Cochrane D, Taylor A. Implementation of provincial event reporting system – issues related to health authorities, keeping the system current, data analysis.
38. Cochrane DD, Matlow A. Adverse events in pediatrics in acute and community care.
39. Cochrane DD. Positive deviance in fostering system change in health care.
40. Cochrane DD, MacNeily D. Cranial distraction for craniostenosis in complex craniosynostosis. Abstract submitted.
41. Ansermino M, King, A, Daniels J, Lim J, Cochrane DD, Taylor. A. Time to listen: A review of methods to solicit patient reports of

adverse events Under review QSHC.

**Dr Steinbok**

- 42.** Sherman E, Connolly M, Steinbok P. Cognitive Outcome and Quality of Life in Children with Frontal Lobe Epilepsy – in progress.
- 43.** Steinbok P, Garton H, MacNeilly. Randomized controlled trial of section of filum versus best medical management for occult filum terminale syndrome. In progress.
- 44.** Oliviera M, Steinbok P, Cochrane DD. Hydranencephaly and choroid plexus coagulation – clinical series: near completion.
- 45.** Steinbok, P. Shunt registry for shunt infections – in progress.
- 46.** Warren D, Steinbok P et al. Morphine after craniotomies in children: near completion.
- 47.** Steinbok P. for the Canadian Pediatric Neurosurgery Study Group. Thalamic tumours in children across Canada: in progress.



# THE DEPARTMENT OF PEDIATRIC OPHTHALMOLOGY



"The Department of Ophthalmology at BC Children's Hospital is the main source of tertiary level eye care for the children of British Columbia."



## TEAM: 2008-09

### Faculty On-site:

Dr. Christopher Lyons,  
Department Head

Dr. Jane Gardiner

Dr. Maryam Aroichane

### Faculty, Off-site:

Dr. Roy Cline

Dr. Alan Demco

Dr. Ross Kennedy

Dr. Megan Rees

Dr. Aron Tischler

Dr. Patrick Ma (retina)

Dr. David Albiani (retina,  
ERG)

Dr. Katherine Paton  
(ocular oncology)

Dr. Peter Dolman  
(oculoplastics)

Dr. Jack Rootman (orbit)

Dr. David Rossman (orbit)

### Consulting Faculty:

Dr. Duncan Anderson  
(neuro-ophthalmology)

Dr. Simon Lam (retina)

Dr. David Maberley (retina)

Dr. Michael Potter (retina)

Dr. William Ross (retina)

### Orthoptic Staff:

Ms. Christy Giligson

Ms. Andrea Quan

Ms. Vaishali Metha

Ms. Cindy York

### Electrophysiology Staff:

Mr. Richard Gonzalez

### Research Department:

Dr. Debbie Giaschi

### Affiliations - Visual Impairment Program:

Dr. Carey Matsuba

### Administrative Staff:

Ms. Hanna Havshykova

Ms. Eshani Biyagamage

Ms. Dolores Latham

Ms. Natalie Wong

## HIGHLIGHTS AND ACHIEVEMENTS

The Department of Ophthalmology has been very busy over the past year. Our outpatient clinic is one of the busiest in the hospital, with close to 11,000 patient visits per year. Also in that time, our active staff has published more than 50 articles in peer reviewed literature. We also gave more than 40 presentations to our colleagues, locally and abroad, on a wide range of topics. We continue to be active in educating medical students and residents. We also take pride in training 2 fellows in the area of Pediatric Ophthalmology and Strabismus on an annual basis. Our most recent fellows were from Thailand and Ireland.

Our department continues to work in close association with Visual Impairment Program at CW Hospital. The Visual Impairment Program assesses children with visual impairment and links children to community and educational services. The program has been involved with many community educational initiatives and has presented nationally and internationally.

Our electrophysiology service has been upgraded in the past year with the assistance of the Hospital for Sick Children in Toronto. We had a week-long visit from one of their scientists, who helped update our unit, created a normative data base and improved the overall results of our testing. This will help in the diagnosis and management of blind infants, monitor the side effects of some medications and assist in the diagnosis of various retinal and optic nerve diseases. Also, we are pleased to report that, after a period of orthoptic staffing shortages, we look forward to returning to a full complement of staff in the coming months. This will enhance our services and increase our clinic efficiency.

Our department is busy getting ready to host the 6th Biennial Pediatric Ophthalmology and Strabismus Conference in September 2009. This is sponsored by the Division of Continuing Professional Development and Department of Ophthalmology and Vision Science at UBC. It is an exciting, two day, international meeting with international speakers

and local faculty. It has been very popular amongst both general and pediatric ophthalmologists. This year, we managed to secure enough funding so that all BC ophthalmologists can attend free of charge.

## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

### Presentations

1. Aroichane M. Update on exotropia. 33e Journée Annuelle d'Ophthalmologie Pédiatrique Sainte-Justine, HEC, Montreal, October 17, 2008.
2. Aroichane M. Leber's Hereditary Optic Neuropathy. Neurology Grand Rounds, BC Children's Hospital, November 26, 2008.
3. Aroichane M. Leber's Hereditary Optic Neuropathy. Ophthalmology Grand Rounds, Eye Care Center, March 13, 2009.
4. Cline R. "Ophthalmic Assessment of the Pilot", Canadian Aviation Medicine, Sept. 2008, Vancouver.
5. Cline, R. "How Not to Miss Strabismus and Amblyopia", St. Paul's Refresher Course, November 2008, Vancouver.
6. Cline, R. "Strategies in Reoperative Strabismus". UBC Department of Ophthalmology and Vision Science. Grand Rounds, March 2009.
7. Dolman, P. Lacrimal Surgery: evolution of techniques. Controversies in Thyroid Orbitopathy. Ptosis and its Management. Invited speaker, Atlantic Ophthalmic Society, Halifax, May 2008.
8. Dolman, P. What's New In Thyroid Orbitopathy. Invited speaker, ARVO Orbit Symposium, Florida, USA, May 2008.
9. Dolman, P. Latest Updates in Non-endoscopic Endonasal DCR, ASOPRS Spring Symposium, Washington DC, USA, July 2008.
10. Dolman, P. ITEDS Update. Comparison of orbital decompression based on clinical indication. Thyroid Eye Disease Breakout Session - Co-chair. Orbit Society International Symposium, Invited speaker, New York City, USA, Sept 2008.
11. Dolman, P. Orbit Society International Conference, Invited faculty, New York, USA, September 2008.
12. Dolman P. UBC Dept of Ophthalmology Research Day, Comparison of orbital decompressions based on indications, April 2008.
13. Dolman P. Oculoplastics Invited Guest Speaker, Kuwait Ophthalmology Meeting, Feb 2009.
14. Giaschi, D. - Beyond 20/20 vision. Centre for Community Child Health Research Day, April 2008.
15. Giaschi, D. The typical and atypical maturation of coarse stereopsis. The Canadian Orthoptic Society Annual Meeting. Whistler BC, June 2008.
16. Giaschi, D. Fine and coarse stereopsis. Canadian Amblyopia Network meeting, McMaster University, July 2008.
17. Gardiner, JA. Amblyopia Update, Grand Rounds, Dept of Ophthalmology and Vision Science, University of British Columbia, December 2008.
18. Lyons, C. Congenital optic disc anomalies and their neurological significance. Université de Laval, Quebec. February 1, 2008.
19. Pollock T, Lyons CJ. Retrospective case review of glaucoma valve implantation with mitomycin C in childhood. UBC Ophthalmology 24th Annual Research Day, 2008.
20. Puvanachandra N, Lyons CJ. UBC Ophthalmology 24th Annual Research Day. The rapid measurement of corneal diameter in children in clinic using digital photography (Winner best Fellow presentation 2008)
21. Wiwawongwana A, Lyons CJ. Controversies in Pediatric Ophthalmology and Strabismus. Childhood exotropia and the chase for the holy grail. Canadian Ophthalmological Society June 2008.
22. Brennan R, Lyons CJ. An investigation of the genetic causes of congenital stationary night blindness: correlating genetic mutational changes, clinical, and electrophysiological findings. Canadian Ophthalmological Society June 2008.
23. Puvanachandra N, Pollock T, Lyons CJ. Rapid measurement of corneal diameter in children in clinic using digital photography. Canadian Ophthalmological Society June 2008.
24. Puvanachandra N, Pollock T, Lyons CJ. Ahmed glaucoma valve

- implant with mitomycin C in pediatric glaucoma: a retrospective review. Canadian Ophthalmological Society June 2008.
25. Lyons CJ. Acute acquired comitant esotropia: neurological and other implications. Colombian Ophthalmological Society. Section of Neuro-ophthalmology. Cartagena, August 2008.
  26. Lyons CJ. Congenital optic disc anomalies: when should I call the neurologist. Colombian Ophthalmological Society. Section of Neuro-ophthalmology. Cartagena, August 2008.
  27. Lyons CJ. Course: Back to the clinic: The direct ophthalmoscope. Colombian Ophthalmological Society. Section of Neuro-ophthalmology. Cartagena, August 2008.
  28. Lyons CJ. Course: Adjustable sutures: My technique. Colombian Ophthalmological Society. Section of Neuro-ophthalmology. Cartagena, August 2008.
  29. Mavrikakis J, Lyons CJ, Rootman J. Congenital Orbital Fibrosis: a distinct clinical entity. American Academy of Ophthalmology November 2008.
  30. Lyons CJ, Moorfields Eye Hospital. November 2008, Acquired Comitant Esotropia: why worry?
  31. UBC Department of Medical Genetics: Retinoblastoma: The Clinical Story begs for Genetic Analysis, spring, 2008.
  32. UBC Pediatric Oncology: Trilateral Retinoblastoma: Case Management, February 19, 2009.
  33. UBC Department of Ophthalmology Grand Rounds: Predicting the Future: Ocular Oncology Now, January 23, 2009.
  34. Ethics 2008: 17th Annual Ethics Conference, College of Physicians and Surgeons of BC/BCMA. Plenary Panel: The Good, the Bad and the Over-Simplified: Evidence-Based Medicine through an Ethics Lens. Presentation: Beyond the Evidence: Working in the Evidence-Free Zone, May 10, 2008.
  35. International Society of Eye Genetic Diseases and Retinoblastoma: Clinicopathologic and Imaging Correlation after "Rescue" Therapy of Advanced Recurrent Resistant RB using Intraarterial Melphalan. Caution: Eye loss from side effects rather than active disease, KPaton, CStahlendorf, VAWWhite, RHeran, BGallie, August 2008.
  36. Rees, M. Vision Therapy Revisited. Canadian Ophthalmology Society Meeting, Invited speaker for The Canadian Orthoptic Council, Whistler, June 2008.
  37. Rootman J. et al. - Annual Meeting, Canadian Ophthalmic Pathologists Society, An unusual choroidal tumour / Rare and unusual lacrimal gland neoplasm / Perineural gliomatosis associated with isolated optic nerve gliomas - 3 presentations presented by students - Whistler, BC, June 11, 2008.
  38. Rootman J. Guest Speaker and Organizing Committee Member, 2nd International Orbital Society Symposium, New York, NY, September 26-27, 2008.
  39. Rootman, J. - Invited Speaker, Extraordinary Ophthalmology Meeting, Vascular malformations: current management and future thoughts, Department of Ophthalmology & Visual Sciences, University of Wisconsin, Madison, WI, July 11-12, 2008.
  40. Rossman, D. Ophthalmic Problems from Sinus Disease. Invited Speaker, UBC Ophthalmology Grand Rounds. Vancouver, October 3, 2008.
  41. Rootman J. et al. - Annual Meeting, Canadian Society of Oculoplastic and Reconstructive Surgery, Benign recurrent pleomorphic adenoma of the lacrimal gland presenting as an unknown orbital mass with intracranial extension: an approach to management, Annual Meeting, Orbital Society, New York, NY, September 25, 2008.

## PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. Puvanachandra N. Aroichane M. Diffuse corneoscleral limbal neuromas with prominent corneal nerves in MEN Type IIB. Accepted without revision by the American Journal for Pediatric Ophthalmology and Strabismus as of May 6, 2008.
2. Badilla J and Dolman PJ. Methods of Antibiotic Instillation in Porous Orbital Implants. *Ophthalmic Plast Reconstr Surg* 2008; 24.
3. Peter Dolman. Surgical Approaches to the Orbit. Chapter of AAO Academy Manual on Orbit, 2008.
4. Peter Dolman. Thyroid Orbitopathy. Chapter of Clinical Atlas of Orbital Diseases and Proptosis, India, 2008.
5. Rupps R, Krakow D, Puvanachandra N, Gardiner J, Boerkoel CF. Fetal Alcohol Syndrome: a phenocopy of Spondylarcarpotarsal synostosis syndrome? *European Journal of Human Genetics*, 2008 May; vol 16, supplement 2:p.76 (peer reviewed published abstract).
6. Guilcher GM, Gardiner JA, Wadsworth LD, Dix DB, Retinal hemorrhages requiring vitrectomy in a patient with hemophagocytic lymphohistiocytosis. *Pediatr Blood Cancer*. 2008 Jul;51(1):145.
7. Dewji ZA, Gardiner J, Ludemann JP. Young Child with Cystic Fibrosis and Destructive Sinonasal Polyposis which resolved Oral Steroids and Antifungals. *Int J Ped Otorhinolaryngol Extra*, accepted April 2008.
8. Giaschi D, Au Young S, Fitzpatrick K, Diao L, Bjornson B, Barton J. Combined functional MRI & diffusion tensor imaging analysis of visual motion pathways. *Journal of Neuro-Ophthalmology* in press 2009.
9. Boden C, Giaschi D. The role of low-spatial frequencies in lexical decision and masked priming. *Brain and Cognition* 2009; 69:580-91.
10. Iaria G, Lanyon L, Fox C, Giaschi D, Barton J. Navigational skills correlate with hippocampal fractional anisotropy in humans. *Hippocampus* 2008;18:335-9.
11. Ho C, Giaschi D. Low-and high-level motion perception deficits in anisometropic and strabismic amblyopia: evidence from fMRI. *Vision Research* submitted November 2007; revision submitted October 2008, revision in progress.
12. Ho C, Giaschi D. Low-and high-level first-order random-dot kinematograms: evidence from functional magnetic resonance imaging. *Vision Research* submitted November 2007; revision submitted April 2008.
13. Giaschi D, Cheema R, Ho C, Vanderbyl B, Kim D, Yau A, Secen J. The effect of speed on the typical and atypical development of motion-defined form perception. *Vision Sciences Society* accepted 2009.
14. Scheel M, Lanyon L, Giaschi D, Barton J. The organization of inter-hemispheric projections from areas 17 and 18 in the human splenium, studied with DTI probabilistic fiber tracking. *Vision Sciences Society* accepted 2009.
15. Pollock N, Lanyon L, Giaschi G, Bjornson B, Barton J. A combined fMRI and DTI study of projections between V5 and thalamus: a potential substrate for blindsight. *Canadian Ophthalmology Society Meeting*, 2008.
16. Giaschi D, Mackenzie K, Boden C, Solski A, Wilcox L. The development of coarse stereopsis in school aged children. *Journal of Vision* 2008; 8(6):99a.
17. Levi M, Kodsi SR, Rubin SE, Lyons C. et al. Ocular involvement as the initial manifestation of Wegeners granulomatosis in children. *JAAPOS* 2008;12:94-6.
18. McKenzie P, Stokes J (F), Dolman P, Lyons CJ. Dacryocoele diagnosed pre-natally. *Brit J Ophthalmol*. 2008;92:437-8.
19. Puvanachandra N (F), Heran, Lyons CJ: Morning Glory Disc Anomaly, Capillary Hemangioma, Agenesis of the Internal Carotid Artery and Horner's Syndrome: A Variant of PHACES syndrome? *JAAPOS* 12:528-30: 2008.
20. Mavrikakis I, Pegado V, Lyons CJ, Rootman J. Congenital Orbital Fibrosis. A Distinct Clinical Entity. *Orbit* 2008 (accepted)
21. Traumatic hyphema and Idiopathic thrombocytopenic Purpura. Late rebleeds associated with low platelet counts. Pollock T (F), Laliberte I (F), Wu J, Lyons CJ. *Can J Ophthalmol* 43;717:2008.
22. Lyons CJ. Surgery for infantile esotropia: how early is early? (Editorial) *Can J Ophthalmol* 43;629:2008.
23. Puvanachandra N(F), Lyons CJ. Rapid measurement of corneal diameter in children: validation of a clinic-based digital photographic technique. *JAAPOS* (accepted)



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25. Comer R (F), Kersey JP (F), Cline RA, Lyons CJ. Cataract extraction in infancy: Outcomes and aphakic glaucoma. *British Journal of Ophthalmology* (submitted).
26. Neffendorf J, Quinlan M, Mulholland C, Lyons C. Disc drusen complicated by asymptomatic hemorrhage in childhood. *JAAPOS*. (submitted)
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32. White VA, Rootman J, Wittekind C, Karcioğlu ZA, Fleming JC, Esmali B, Tse D, Finger PT. Carcinoma of the lacrimal gland. In, *AJCC Cancer Staging Manual*. 7th ed. New York: Springer (in press, 2009).
33. Fleming JC, Karcioğlu ZA, White VA, Rootman J, Kivela T, Finger PT. Sarcoma of the orbit. In, *AJCC Cancer Staging Manual*. 7th ed. New York: Springer (in press, 2009).
34. Coupland SE, White VA, Rootman J, Kivela T, Seregard S, Damato B, Armitage JO, Finger PT. Ocular adnexal lymphomas. In, *AJCC Cancer Staging Manual*. 7th ed. New York: Springer (in press, 2009).
35. Boey PY, Seah LL, Loh BK, Rootman J. Development of thyroid related orbitopathy following cataract surgery (submitted, *British Journal of Ophthalmology*, 2008)
36. Coupland SE, White VA, Rootman J, Damato B, Finger PT. A TNM-based staging classification system for ocular adnexal lymphomas. (submitted, *Archives of Pathology and Laboratory Medicine*, 2009).
37. Dolman PJ, Rootman J. Nonspecific orbital inflammatory syndromes. In: Roy FH, Fraunfelder FT, Fraunfelder FW, eds. *Current Ocular Therapy*, 6th ed. Philadelphia: Elsevier. (In press).
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39. Mavrikakis I, Heran MKS, White VA, Rootman J. The role of thrombosis as a mechanism of exacerbation in venous and combined venous lymphatic vascular malformations of the orbit (accepted, *Ophthalmology*, 2009).
40. Rootman J, White VA. Changes in the 7th edition of the AJCC TNM classification and recommendations for pathologic analysis of lacrimal gland tumors (submitted, *Archives of Pathology and Laboratory Medicine*, 2009).
41. Weis E, Berean KW, Rootman J, Joly TJ, Al-Katan HM, Pasternak S, Vangveeravong S, White VA. Epithelial neoplasms of the lacrimal gland (submitted, *Archives of Ophthalmology*, 2009).
42. Yeung SN, Heran MS, Smith A, White VA, Rootman J. Perineural gliomatosis associated with isolated optic nerve gliomas (accepted, *British Journal of Ophthalmology*, 2008).
43. Harbour JW, Murphree AL, Karcioğlu ZA, Seregard S, Albert DM, Augsburger JJ, Chevez-Barrios P, Coupland S, Eagle R, Edward D, Gallie BL, Haik GB, Harocopos GJ, Hungerford JL, Kivela T, Milman T, Rootman J, Finger PT. Retinoblastoma. In, *AJCC Cancer Staging Manual*. 7th ed. New York: Springer (in press, 2009).
44. White VA, Rootman J, Wittekind C, Karcioğlu ZA, Fleming JC, Esmali B, Tse D, Finger PT. Carcinoma of the lacrimal gland. In, *AJCC Cancer Staging Manual*. 7th ed. New York: Springer (in press, 2009).
45. Fleming JC, Karcioğlu ZA, White VA, Rootman J, Kivela T,

- Finger PT. Sarcoma of the orbit. In, AJCC Cancer Staging Manual. 7th ed. New York: Springer (in press, 2009)
46. Coupland SE, White VA, Rootman J, Kivela T, Seregard S, Damato B, Armitage JO, Finger PT. Ocular adnexal lymphomas. In, AJCC Cancer Staging Manual. 7th ed. New York: Springer (in press, 2009).
  47. Lee KYC, Fong KS, Loh HL, Heran MK, Rootman J. Giant cavernous haemangioma mimicking a fifth nerve neurofibroma involving the orbit and brain. *British Journal of Ophthalmology* 2008;92(3):423-5.
  48. Mathur R, Seah LL, Lim W, Cheah E, Looi A, Rootman J. High-flow hemangioblastoma of the orbit. *Ophthalmic Plastic and Reconstructive Surgery* 2008;24(1):67-9.
  49. Wiwatwongwana D, Rootman J. Management of optic neuropathy from an apical orbital-cavernous sinus hemangioma with radiotherapy. *Orbit* 2008;27 (3):219-21.
  50. Mavrikakis I, Liarakos VS, Vergados I, Rootman J. Orbital sarcoid treatment. *Expert Review of Ophthalmology* 2008;3(2):219-27.
  51. Pitts J, Chang CH, Mavrikakis I, Shaikh A, Rootman J. Hepatocellular carcinoma presenting as orbital bone metastasis. *Ophthalmic Plastic and Reconstructive Surgery* 2008;24(6):477-9.
  52. Tsai AS, Fong KS, Lim W, Al Jajeh I, Chuah CT, Rootman J. Bilateral orbital varices: an approach to management. *Ophthalmic Plastic and Reconstructive Surgery* 2008;24(6):486-8.
  53. Mohaseb K, Linder M, Rootman J, Wilkins GE, Schechter MT, Dolman PJ, Singer J. Development and validation of a patient symptom questionnaire to facilitate early diagnosis of thyroid-associated orbitopathy in Graves' disease. *Orbit* 2008;27(6):419-25.



## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
The typical and atypical maturation of coarse and fine stereopsis, March 2009	Giaschi, D	Wilcox L. (York U)	CIHR	\$130,375
Predicting occlusion, March 2009	Giaschi, D	Regan D. (York U.)	CIHR	\$89,205
Undergraduate student research award for Alan Yau	Giaschi, D		NSERC	\$4,500
Graduate Fellowship for Marita Partanen	Giaschi, D		NSERC	\$20,000
Michael Smith Foundation Scholarship for John Secen	Giaschi, D		Michael Smith Foundation	\$20,000
Scholarship top-up for Marita Partanen	Giaschi, D		Michael Smith Foundation	\$7,000

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Medical Students	3 Medical Students rotate through a Pediatric Ophthalmology Clinic each week as part of their week of ophthalmology in clerkship.
Peter Zakrzewski	Resident Pediatric Ophthalmology (April 17- May 11, 2008)
George Yearsley	Resident Pediatric Ophthalmology (July 28 - Sept 21, 2008)
Claire Sheldon	Resident Pediatric Ophthalmology (Sept 22 - Nov 16, 2008)
Renee Talbot	Resident Pediatric Ophthalmology (Nov 17 - Jan 18 , 2008)
Sonia Yeung	Resident Pediatric Ophthalmology (Jan 19 - March 15 , 2009)
Jean Chuo	Resident Pediatric Ophthalmology (March 16 - present )
Narman Puvanachandra (UK)	Pediatric Ophthalmology Fellows (2007-2008)
TTravis Pollock (South Africa)	Pediatric Ophthalmology Fellows (2007-2008)

Atchareeya Wiwawongwana (Thailand)	Pediatric Ophthalmology Fellows (2008-2009)
Conor Mulholland (Ireland)	Pediatric Ophthalmology Fellows (2008-2009)
Chris Waite (Roy Cline MD)	Medical Student Elective, Selected to the U of A Ophthalmology program, June 2008
4th Year Medical Students (Alan Demco, MD)	Objective Structured Clinical Examinations. University of British Columbia, School of Medicine, Children's Hospital Ambulatory Care Building, Vancouver, British Columbia, Mar 1, 2009.
Dr Damrong Wiwatwongwana (Thailand) (Peter Dolman)	Oculoplastics/Orbit, January-July 2008
Dr. Tessa Fayers (England) (Peter Dolman)	Oculoplastics/Orbit, July-December 2008
Catherine Boden (Debbie Giaschi, PhD)	Research Assistant (graduate student, Library and Information Science)

Marita Partanen (Debbie Giaschi, PhD)	2nd Year MSc Student
John Secen (Debbie Giaschi, PhD)	2nd Year MSc Student
Alan Yau (Debbie Giaschi, PhD)	NSERC USRA Summer Student
Emily Harrison (Debbie Giaschi, PhD)	Work-study Student
Andrew Lam (Debbie Giaschi, PhD)	Work-study Student
Dr. Roona Singha (Paton K)	Pediatric Oncology Fellow
Dr. Maram Issac (Paton K)	Pediatric Oncology Fellow
Adam Clarkson (Paton K)	Masters Student
Damrong Wiwatwongwana (Thailand) (Rootman J)	July 2007-June 2008
William Thornton (USA) (Rootman J)	July 2008
Panitee Luemsamran (Thailand) (Rootman J)	Sept 2008-August 2009
Bryan Winn (USA) (Rootman J)	December 2008
Isabel Bleyen (Belgium) (Rootman J)	January 2009

## HONOURS AND AWARDS

Recipient	Name of Award	Date Received
Alan Demco, MD	Vancouver Coastal Health Physician Recognition, 20 year pin	June 2, 2008
Alan Demco, MD	BC Children's & Women's Health Centre, 30 year recognition pin	December 15, 2008
Katherine Paton, MD	Vancouver Hospital 25 Year Service Award	June 2008

## COMMITTEE PARTICIPATION

### Dr. Dolman

1. Member of the Written Exam Committee of the RCPSC (Ophthalmology). Vancouver Hospital (VHHSC)
2. Medical and Academic Advisory Committee (MAAC)
3. Orbit Society, A Society of 26 international members, 2006-present
4. International Thyroid Eye Disease Society, Invited member, Steering Committee, 2007-present
5. BC Society of Eye Physicians and Surgeons
6. Reviewer (journal, agency):  
British Journal of Ophthalmology, 2000-current  
Canadian Journal of Ophthalmology, 2001-current  
J Pediatric Hematology and Oncology, 2007-current  
Ophthalmic Plastic and Reconst Surg, 2002-current  
Ophthalmology, 2003-current  
Thyroid, 2003-current

### Dr. Gardiner

7. Member of the Written Exam Committee and Oral Exam Committee, RCPSC (Ophthalmology), 2007-present
8. Canadian Orthoptic Council Examiner, June 2008
9. Medical Director, Orthoptics Training Program, BCCH, 2007-present



10. Secretary/Treasurer, Canadian Association of Pediatric Ophthalmology, 2008-present
  11. UBC Ophthalmology and Vision Science Continuing Education Committee, 2005-present
- Dr. Giaschi**
12. High Field MRI Centre Protocol Review Committee member 2004-present
  13. NSERC USRA Faculty of Medicine Committee coordinator 2007-present
  14. Teaching Evaluation Committee, Psychology member 2008-present
  15. Ophthalmology Executive Advisory Committee member 2001-present
  16. Research Day Committee, Ophthalmology chair 2007-present
  17. Residency Training Committee, Ophthalmology member 1998-present
  18. Faculty of Medicine mentor: Lorientne Jenstad School of Audiology and Speech Sciences 2005-present
  19. Neuroscience supervisory committees: Chair Natalie Pietravalle 2009-present; Member Lee Lau 2008-present; Member Adrienne Borrie 2007-present; Chair Samantha Palmer 2005-present
  20. Psychology supervisory committees: Member Mandy Chen 2007-present
  21. Reviewer (journal, agency):  
Vision Research manuscript reviewer, 1991–current  
Experimental Brain Research manuscript reviewer 1993–current  
Natural Science and Engineering grant reviewer 1996–current  
Research Council (NSERC)  
Journal of Neuroscience manuscript reviewer 1997–current  
Journal of Strabismus and manuscript reviewer 1997–current  
Canadian Institutes for Health grant reviewer 2000–current  
Ophthalmology manuscript reviewer 2000–current  
Archives of Ophthalmology manuscript reviewer 2000–current  
Psychological Science manuscript reviewer 2001–current  
Spatial Vision manuscript reviewer 2003–current  
Optometry & Vision Science manuscript reviewer 2004–current  
Developmental Psychobiology manuscript reviewer 2004–current  
Developmental Medicine manuscript reviewer 2004–current

Brain and Cognition manuscript reviewer 2005–current  
Brain Topography manuscript reviewer 2005–current  
Developmental Neuropsychology manuscript reviewer 2006–current  
Journal of Vision manuscript reviewer 2006–current  
Neuropsychologia manuscript reviewer 2006–current

**Dr. Kennedy**

22. Chairman, Continuing Education Committee, Canadian Orthoptic Council
23. Member, Vision Screening Steering Committee, Ministry of Health, Province of British Columbia
24. Member, Vision Screening Committee, American Association for Pediatric Ophthalmology and Strabismus

**Dr. Lyons**

25. UBC Department of Ophthalmology and Vision Science:  
Director, Ophthalmology Residency Training January 1999-present  
Member Residency Selection sub-committee  
Member, UBC Ophthalmology Staff Committee  
Member, UBC Advisory Committee  
Member UBC Ophthalmology Manpower Committee
26. Member of the Written Exam Committee and Oral Exam Committee, RCPSC (Ophthalmology). British Columbia Children's Hospital:  
Head, Department of Ophthalmology 1995-present  
Member, Surgical Specialties Cabinet Committee  
Member Surgical Specialties Advisory Committee
27. Vancouver Hospital:  
Member, Ophthalmology Staff Committee  
Member, Medical Staff Committee
28. Reviewer (journal articles):  
British Journal of Ophthalmology  
Canadian Journal of Ophthalmology  
Eye  
Journal of the Association for Pediatric Ophthalmology and Strabismus

**Dr. Ma**

29. OR review Steering Committee VGH
30. OR capital disposable equipment ophthalmology committee

**31.** Ophthalmology redesign committee, UBC

**32.** CJO, Retinal paper Reviewer

**Dr. Paton**

**33.** Faculty of Medicine, UBC

Faculty of Medicine Integrating Study and Service Committee.  
2004-present

Special Advisor to the Dean, Clinical Faculty Affairs, July 1, 2004–  
Dec 31, 2008

Executive Associate Dean, Clinical and Community Partnerships,  
UBC Faculty of Medicine Feb 2009-present

Member UBC Research Ethics Policy Advisory Board (advisory to  
VP Research) Sept 2002-present

Postgraduate Planning Task Force, UBC FoM, Health Authorities  
and Ministry of Health

Clinical Faculty Affairs Committee - Chair

Faculty Health Initiative

**34.** UBC Department of Ophthalmology and Vision Science

Administrative Roles:

Director, Ophthalmic Diagnostic Ultrasound

Director, Anterior Segment Assessment Unit

Ophthalmology Residents' Journal Club, Chair, 1993-present

UBC Department of Ophthalmology Residency Training  
Committee September 2002-present

Ophthalmology Resident Selection Committee

**35.** American International Society for Ocular Oncology

Scientific Committee for 2009 meeting

**36.** British Columbia Medical Association

Elected Member of the Board, District 3 Delegate, Dec 1999-  
present

Member, Governance and Nominating Committee, June 2006-  
present

Member, Resolutions Committee of the Board, June 2006-present

UBC/ BCMA Joint Liason Committee

CMA General Council, BCMA Delegate

**37.** Vancouver Medical Association - President

**38.** BC Cancer Agency Surgical Oncology Committee, 1991-present

**39.** BC Children's Hospital Laser Use Committee, 1990-present

**40.** BC Children's Hospital Oncology Group - Retinoblastoma Protocol

**41.** National Retinoblastoma Strategy Organizing Group (Canada)

VHHSC:

VHHSC Medical Quality of Care Committee, 1991-present

VHHSC Medical Staff Committee, 1991-VHHSC Executive  
Committee, Medical & Allied Health

**42.** Professional Staff, 1990-present

VHHSC Medical and Academic Advisory Committee, 1999-present

VHHSC Medical Ethics Committee, 1998-present

VCHA

Vancouver Coastal Health Authority - member, Regional MAC

Vancouver Coastal Health Authority - member Executive of  
Regional MAC

**43.** Founder, Vancouver Community Medical Staff Association

**Dr. Rees**

**44.** Honorary President of the Canadian Orthoptic Society (TCOS),

2001-present

**Dr. Rootman**

**45.** Memberships on scholarly committees:

American University Professors of Ophthalmology

Education Group, 1996-present

Research Support and Collaborative Research Committee, 1997-  
present

**46.** Memberships on other committees:

BC Cancer Agency Professional Advisory Committee, 1992-present

Associate Member: VGH Division of Neurosurgery, Department of  
Surgery, 1992-present

VGH Foundation Art Committee, 1998-present

**47.** Grant Application Reviewer:

Canadian Institutes on Health Research 1994-present

EA Baker Foundation Review Committee - Prevention of Blindness

Research Fund for New and Innovative Researchers, 1998-present

**48.** Scientific Reviewer:

American Journal of Ophthalmology, 1992-present

Archives of Ophthalmology, 1991-present  
 British Journal of Ophthalmology, 1993-present  
 Section Editor, 1998-present  
 Canadian Journal of Ophthalmology, 1981-present  
 Journal of Neuro-ophthalmology, 1998-present  
 Ophthalmic Plastic and Reconstructive Surgery, 1985-present  
 Ophthalmology, 1983-present  
 Survey of Ophthalmology, 1990-present

## PROJECTS AND INITIATIVES IN PROGRESS

### Dr. Cline

1. Primary Hyperopia with Exotropia-management and case review  
 Consecutive Exotropia with Hyperopia-management and practice review.
2. Service to Remote Communities: UBC Ft St John Visiting Specialist Clinic.

### Dr. Dolman

3. Third World Work - Oculoplastics with ORBIS in Kampala, Uganda July 2008.

### Dr. Gardiner

4. Prognostic Factors for retinal detachment post laser for retinopathy of prematurity, a 6 year review.
5. Retinopathy of prematurity laser rates, 2 years pre and 2 years post the implementation of new O2 saturation limits at BCCH special care nursery.
6. See also under CJ Lyons.

### Dr. Lyons

7. Review of 60 patients undergoing Ahmed valve implantation with mitomycin for childhood glaucoma. Pollock T, Lyons C.
8. Long-term outcome of exotropia correction. Wiwatwongwana A, Quan A, Lyons C.
9. Craniopharyngioma: Variability of presentation and clinical course. Wiwatwongwana A, Gardiner J, Cochrane D, Steinbok P, Lyons C.
10. Ocular involvement with Neurofibromatosis 1- related

vasculopathies. Mulholland C, Lyons C.

11. Incontinentia Pigmenti: lessons learned from a 15-year experience. Mulholland C, Gardiner J, Lyons C.
12. Service to remote communities:  
 Fort Nelson, September 2008  
 Bella Coola 3-day clinic June 2008  
 Nelson (clinic + surgery) February, July, October 2008  
 Third World Work - Pediatric Ophthalmology with ORBIS (off the plane) in Phnomh Penh, Cambodia April 2008.

### Dr. Kennedy

13. Third World Work - Tampico Mexico, August 2008 with Medical Missions International.
14. Medical Director of iScreen LLC. (digital vision screen technology for children).

### Dr. Ma

15. Third world retinal surgical teaching with ORBIS China, Bangladesh, Vietnam; SEE in El Salvador, EMAS in Vietnam.

### Dr. Paton

16. Multicentre Phase II Study for International Intraocular Retinoblastoma Classification Groups B, C, & D Tumors treated with Carboplatin-Etoposide-Vincristine-Cyclosporine-Focal Therapy Multimodality Protocol - Contributing Centre, overall funding obtained competitively. Chief Investigator, B. Gallie.
17. ARET 0332 A study of unilateral retinoblastoma with and without histopathologic high-risk features and the role of adjuvant chemotherapy.
18. National Retinoblastoma Strategy Guidelines: participated in this multiyear, multistakeholder process to create national care guidelines for the identification, treatment, counseling and care of retinoblastoma patients. Guidelines are due for release in 2009, through the Canadian Ophthalmologic Society.

### Dr. Rootman

19. Pulsed dose steroids versus radiotherapy for treatment of thyroid orbitopathy, 1994 - present

20. Study of orbital lymphomas using term follow-up and gene rearrangement, 1995 - present
21. Clinical and radiologic differences in extraocular muscles of Asian and Caucasian populations affected by Graves' orbitopathy, 1996 - present
22. Orbital vascular lesions: definition and new treatments, 1996 - present
23. Retrospective and prospective studies of thyroid orbitopathy - new treatment methodologies for early intervention in patients with thyroid orbitopathy, 1997 - present
24. Orbital inflammatory disease: definition and treatment, 1997 - present
25. P Saeed, PJ Dolman, M Linder, M Davison, J Rootman, Outcome study of radiotherapy for the management of thyroid orbitopathy, present
26. "Orbital Surgery: A Conceptual Approach", 2nd edition, present





# THE DEPARTMENT OF PEDIATRIC ORTHOPAEDICS

"The Department has two geographic sites: British Columbia Children's Hospital, which houses office and ambulatory facilities for each of the staff, and Sunny Hill Health Centre for Children, which serves as a musculoskeletal diagnostic center, primarily via the Shriner's Gait Lab which serves both as a diagnostic and research tool for the Department."



**TEAM: 2008-09**

**Faculty:**

**Dr. Christopher W. Reilly**  
Department Head

**Dr. Richard D. Beauchamp**

**Dr. Kenneth L.B. Brown**

**Dr. Christine M. Alvarez**

**Dr. U.K. Kishore Mulpuri**

**Dr. Firoz M. Miyanji**

**Research Co-ordinator:**

**Ms. Angie Perdios**

**Research Assistant:**

**Ms. Caitlin Blewett**

**Ms. Harpreet Chhina**

## HIGHLIGHTS AND ACHIEVEMENTS

One of the highlights of 2008 in Paediatric Orthopaedics was the recognition of Dr. Kishore Mulpuri's research work when he won the prestigious Angela Kuo Young Investigators Award presented by the Pediatric Orthopaedic Society of North America.

The Department also attracted a \$250,000 targeted donation for the purchase of a new spinal table and trauma table. The table is a great addition to the new Operating Room Suite constructed for Orthopaedic Surgery at Children's.

The Department also hosted Dr. Dennis Wenger as its paediatric Visiting Speaker, which included a live surgery -- this was a great educational event for hospital staff.

## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

### Presentations:

#### Dr. Reilly

1. "The Spastic Paediatric Hip: Important Diagnostic and Early Treatment Features", UBC Orthopaedic Update, Vancouver, BC, May 1-2, 2008.
2. "Evaluation of Knee Injuries in the Pediatric Emergency Department", UBC Emergency Fellows Lecture, BCCH, Vancouver, BC, 2008.
3. "Psychiatric Disorders Associated with Scoliosis: A Prevalence Study", Office of Pediatric Surgical Evaluation and Innovation Research Rounds, BCCH, Vancouver, BC, November 4, 2008.
4. "Psychiatric Disorders Associated with Scoliosis: A Prevalence Study", UBC Department of Orthopaedics Grand Rounds, VGH, Vancouver, BC, November 5, 2008.
5. "Psychiatric Disorders Associated with Scoliosis: A Prevalence Study", UBC Department of Paediatric Orthopaedics Visiting Professor Lecture (Dr. Dennis Wenger, Visiting Professor), BCCH, Vancouver, BC, November 7, 2008.
6. "Moving Away from Anterior Surgery in Pediatric Deformity

Surgery”, UBC Department of Orthopaedics Grand Rounds, VGH, Vancouver, BC, February 4, 2009.

7. “Instructional Course: Management of Pediatric Spine Trauma”. American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 25, 2009.

#### Dr. Beauchamp

8. “Further Progress with Mid-foot Break”, Department of Paediatric Orthopaedics Visiting Professor Lecture (Dr. Dennis Wenger, Visiting Professor), BCCH, Vancouver, BC, November 7, 2008.

#### Dr. Brown

9. “Results of Treatment of 71 Patients with Localized, Completely Resected (Group I) Alveolar Rhabdomyosarcoma on Intergroup Rhabdomyosarcoma Study Group (IRSG) Protocols -III and IV, 1984-1997”. Poster presented at SIOP Berlin, November 2008.

#### Dr. Alvarez

10. “Early Effect of Type A toxin (BTX-A) in Idiopathic Toe Walking”. Western Student Medical Research Forum, Carmel, California, February 2008.
11. “Use of Botulinum Toxin A in the Treatment of Idiopathic Clubfoot: Mid-Term Follow-up”. Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, New Mexico, April 29-May 2, 2008.
12. “The Dynamic Plantar Pressure Profiles of Normal Children”. Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, New Mexico, April 29-May 2, 2008.
13. “Early Effect of Botulinum Toxin type A on Ankle Range of Motion in Children Diagnosed with Severe Idiopathic toe Walking”. Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, New Mexico, April 29-May 2, 2008.
14. “Use of Botulinum Toxin A in the Treatment of Idiopathic Clubfoot: Mid-Term Follow-up”. Canadian Orthopaedic Association Annual Meeting, Quebec, June 2008.
15. “The Dynamic Plantar Pressure Profiles of Normal Children”. Canadian Orthopaedic Association Annual Meeting, Quebec, June 2008.
16. “Early Effect of Botulinum Toxin Type A on Ankle Range of Motion in Children Diagnosed with Severe Idiopathic Toe

Walking”. Canadian Orthopaedic Association Annual Meeting, Quebec, June 2008.

17. “Outcomes of Prenatally Diagnosed Clubfoot”. National Society of Genetic Counsellors, 27th Annual Educational Conference, Los Angeles, California, October 2008.
18. “Pedobarography of Idiopathic Clubfeet”, UBC Department of Paediatric Orthopaedics Visiting Professor Lecture (Dr. Dennis Wenger, Visiting Professor), BCCH, Vancouver, BC, November 7, 2008.
19. “Patient Case Presentation - Residual SCFE Deformity - Treatment Options”, UBC Department of Paediatric Orthopaedics Visiting Professor Lecture (Dr. Dennis Wenger, Visiting Professor), BCCH, Vancouver, BC, November 7, 2008.

#### Dr. Mulpuri

20. “Skeptical Thinking Series: An Introduction to Skeptical Thinking in the Evaluation of Claims (e-poster). Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, April 30-May 3, 2008.
21. “Quantifying Risk: The Quality of Logistic Regression Models in Orthopaedic Research with Recommendations for Standards of Reporting (e-poster). Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, April 30-May 3, 2008.
22. “Cost Effectiveness of Prophylactic Pinning Following Slipped Capital Femoral Epiphysis (e-poster)”. Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, April 30-May 3, 2008.
23. “The Effect of Surgical Timing on Operative Duration and Quality of Reduction in Type III Supracondylar Humeral Fractures in Children (Podium Session: Trauma). Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, April 30-May 3, 2008.
24. “A quality Assessment of Randomized Controlled Trials in the Spine Literature” American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 25-March 1, 2009.
25. “Quantifying Risk: The Quality of Logistic Regression Models in Orthopaedic Research with Recommendations for Standards of Reporting (poster)”. American Academy of Orthopaedic Surgeons

Annual Meeting, Las Vegas, NV, February 25-March 1, 2009.

26. "Pediatric Elbow Fractures, Femur Fractures, Pelvic Osteotomies and Surgical Management of Cerebral Palsy", Balaji Institute of Rehabilitation and Development, Shri Venkateswara University, Triupati, India, August 2008.
27. "Education and Research Collaboration in India", UBC Orthopaedic Grand Rounds, Vancouver, BC, November 5, 2008.

#### Dr. Miyanji

28. "Ligamentum Teres Transfer to Improve Stability in Open Reduction of the Hip in Children: Results of a Pilot Study" (podium presentation). Pediatric Orthopaedic Society of North America Annual Meeting, Albuquerque, NM, April 30-May 3, 2008.

#### Lectures:

##### Dr. Reilly

29. Lecturer, Resident Seminar, "Fractures of the Elbow and Forearm in Children", VGH, January 22, 2009.
30. Lecturer, Resident Lecture, "Medical Ethics", VGH, January 22, 2009.
31. Invited Speaker, "Problems in Cervical Spine Fixation in Children", Pediatric Orthopaedic Society of New Zealand Annual Meeting, New Zealand, February 5, 2009.
32. Invited Speaker, "Is there a Role for Anterior Surgery in Pediatric Deformity?", Pediatric Orthopaedic Society of New Zealand Annual Meeting, New Zealand, February 5, 2009.
33. Invited Speaker, "Thoracolumbar Fractures in Children", Pediatric Orthopaedic Society of New Zealand Annual Meeting, New Zealand, February 6, 2009.
34. Invited Speaker, "Management of Habitual Patellar Instability", Pediatric Orthopaedic Society of New Zealand Annual Meeting, New Zealand, February 6, 2009.
35. Invited Speaker, "Management of Osteochondritis Dissecans", Pediatric Orthopaedic Society of New Zealand Annual Meeting, New Zealand, February 6, 2009.
36. Invited Speaker, "Management of All Deficiency in patients with Open Physis", Pediatric Orthopaedic Society of New Zealand

Annual Meeting, New Zealand, February 6, 2009.

#### Dr. Beauchamp

37. Lecturer, BCIT Prosthetic & Orthotics Students, Burnaby, BC, April 24, 2008.
38. Lecturer, Resident Seminar, "Pediatric Orthopaedics", VGH, Vancouver, BC, July 12, 2008.

#### Dr. Brown

39. Invited Speaker, Western Australia Orthopaedic Society, "An Update on Sarcoma Treatment", Australia, May 29, 2008.
40. Invited Speaker, Australia and New Zealand Children's Oncology Group, Perth Orthopaedic Department - Bone School - Musculoskeletal Tumors, "Principles of Musculoskeletal Tumor Management - 1) Local Control in Sarcomas, 2) Preliminary Experience with PET/CT, 3) An Update on Avascular Necrosis Diagnosis and Treatment", Australia, May 29-31, 2008.

#### Dr. Mulpuri

41. Instructor - "Cast Workshop". The 5th Annual Pediatric Emergency Medicine Update, Vancouver, BC, April 25, 2008.

#### Dr. Miyanji

42. Invited Faculty, "Spine Fundamentals", Spine Deformity Peer-to-Peer Meeting, October 2008.
43. Invited Faculty, "Advanced Deformity Hands-on Practical Lab), March 2009.

#### Teaching Other:

44. "Long Term Supracondylar Fractures", Student: Graham Noble, UBC Med Student, Summer Research, Principal Supervisor: CW Reilly, Co-supervisor: K Mulpuri, 2008.
45. "Morphine Use in Scoliosis Surgery", Student: Genevieve Lennox, UBC Medical Student, Summer Research, Principal Supervisor: CW Reilly, Co-supervisor: G. Lauder, 2008.
46. "Long Term Supracondylar Fractures", Student: Ashlee Dobbe, UBC Medical Student, Summer Research, Principal Supervisor: K Mulpuri, Co-supervisor: CW Reilly, 2008.
47. "Pedicle & Canal Morphology", Student: Denise Mackey, UBC Orthopaedic Resident, Orthopaedic Research, Principal Supervisor: CW Reilly, 2008.



48. "Pedicule & Canal Morphology", Student: Gregory Tournesol, UBC Medical Student, Orthopaedic Research, Principal Supervisor: CW Reilly, 2008.
  49. "Risk Factors of Mental Health Disorder in Scoliosis", Student: Darin Davidson, UBC Orthopaedic Resident, Orthopaedic Research, Principal Supervisor: CW Reilly, 2008.
  50. "Mental Health Disturbance after Acute Knee Injury", Student: James Douglas, UBC Orthopaedic Resident, Orthopaedic Research, Principal Supervisor: CW Reilly, 2008.
  51. "Genotype-Phenotype Correlation of Multiple Hereditary Exostoses, Clubfoot Research Program, Studies of Idiopathic Toe-Walking", UBC PhD Epidemiology Student, Mary De Vera, BCCH Department of Orthopaedics, 2008.
  52. "Genotype-Phenotype Correlation of Multiple Hereditary Exostoses, Quality of Life Study of Multiple Hereditary Exostoses, Clubfoot Research Program, Studies of Idiopathic Toe-Walking", Research Assistant: Harpreet Chhina, BCCH Dept of Orthopaedics, 2008.
  53. Jamieson D, Perdios A, Varghese R, **Reilly CW**, "The Use of Computerized tomography in the Development and Implementation of a Pre-operative Protocol to Aid in Pedicle Screw Placement during Scoliosis Surgery". Society of Pediatric Radiology, Scottsdale, Arizona, May 7-10, 2008.
  54. Davidson D, Davidson S, Perdios, **Reilly CW**, "Psychiatric Disorders Associated with Scoliosis: A Pilot Study of a Validated Screening Tool". American Orthopaedic Association and Canadian Orthopaedic Association Combined Meeting, Quebec City, QC, June 4-7, 2008.
  55. Davidson S, Davidson D, Perdios, **Reilly CW**, "Screening Adolescents with Scoliosis for Psychiatric Disorders: A Pilot Study". Canadian Psychiatric Association 58th Annual Meeting, Vancouver, BC, September 4-7, 2008.
  56. Davidson S, Davidson D, Perdios, **Reilly CW**, "Screening Adolescents with Scoliosis for Psychiatric Disorders: A Pilot Study". American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 25, 2009.
  57. Reilly CW, "Instructional Course: Management of Pediatric Spine Trauma". American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 25, 2009.
  58. Davidson D, Davidson S, Perdios A, **Reilly CW**, "Psychiatric Disorders Associated with Scoliosis: A Prevalence Study". American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 26, 2009.
  59. Dodwell E, Fisher C, **Reilly CW**, Mulpuri K, "A Quality Assessment of Randomized Controlled Trials in the Spine Literature". American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, February 27, 2009.
- Formal Teaching:**
60. Clinical Skills Tutorial, INDE 420 MSK, October 3 and 31, 2008 (CW Reilly).
  61. Clinical Skills Tutorial, INDE 420 MSK, October 1 and 22, 2008 (RD Beauchamp).
  62. Clinical Skills Tutorial, INDE 420 MSK, October 15 and 17, 2008 (KL Brown).
  63. Clinical Skills Tutorial, INDE 420 MSK, October 24, 2008 (CM Alvarez).
  64. Clinical Skills Tutorial, INDE 420 MSK, October 8 and 10, 2008 (K Mulpuri).
  65. Clinical Skills Tutorial, INDE 420 MSK, October 29, 2008 (F Miyanji).
- PUBLICATIONS APR 1, 2008 TO MAR 31, 2009**
1. **Reilly CW**, McEwan JA, Leveille L, Perdios A, Mulpuri KM, "Minimizing Tourniquet Pressure in Pediatric Anterior Cruciate Ligament Reconstructive Surgery: A Blinded, Prospective Randomized Controlled Trial". Journal of Pediatric Orthopaedics, 2008 (In Press)
  2. **Reilly CW**, Book Chapter: "Thoracoplasty". Publisher: Master Techniques in Orthopaedic Surgery - Pediatrics. Editor: Vernon T. Tolo, David L. Skaggs, Lippincott Williams & Wilkins, 2008, 35:411-418.
  3. Cochrane DD, **Beauchamp R**, King C, MacNeily A, Book Chapter: "Spasticity in Spina Bifida". In: The Spine bifida: Management and Outcome. Springer-Verlag Italia 2008, Milan, Italy. Editors: Ozek MM, Cinalli G, Maixner WJ

4. **Alvarez C**, Varghese, R, De Vera M. "Review of Current Methods used in the Treatment of Clubfoot at Initial Presentation and Recurrence". *Journal of Surgical Orthopaedic Advances*, 2008, 17(2):107-14.
5. **Alvarez C**, De Vera M, Chhina HK, Black A. "Maturation of the Dynamic Pedobarographic Profiles of Normal Children". *Gait & Posture*, August 2008.
6. Leavey PJ, Mascarenhas L, Marina N, Chen Z, Krailo M, Miser J, **Brown K**, Tarbell N, Berstein ML, Granowetter L, Gebhardt M, Grier HE, "Prognostic Factors for Patients with Ewing Sarcoma (EWS) at First Recurrence following Multi-modality Therapy: A Report from the Children's Oncology Group". *Pediatr Blood Cancer* 51(3):334-8, 2008.
7. Ramien ML, Prendiville JS, **Brown KLB**, Cairns RA. "Cystic Bone Lesions in a Boy with Darier Disease: A Magnetic Resonance Imaging Assessment". *Am J Acad Dermatol* (In Press, 2008).
8. Cripton P, Loumain-Gardiner K, Perdios A, Tredwell SJ, **Mulpuri K**. "Pediatric Lumbar Chance Fractures in British Columbia: Chart Review and Analysis of the use of Shoulder Restraints in MVA's". *Accident Analysis & Prevention* 2008 Jul;40(4):1424-9. Epub 2008 Apr 14.
9. Blair J, Perdios A, Babul S, Young K, Beckles J, Pike I, Cripton P, Sasges D, **Mulpuri K**, Desapriya E. "The Appropriate and Inappropriate Use of Child Restraint Seats in Manitoba". *International Journal of Injury Control and Safety Promotion*, Vol. 15, No. 3, September 2008, 151-156.
10. Greaves L, Melnyk A, Zhu Q, Greaves C, **Mulpuri K**, Cripton P. "The Effect of Age and Gender on the Three-Dimensional Kinematics of the Pediatric Cervical Spine". *SAE 2007 Transactions Journal of Passenger Cars - Electronic and Electrical Systems* (In Press, 2008).
11. Arneja S, McConkey MO, **Mulpuri K**, Chin P, Gilbert MK, Regan WD, Leith JM. "Graft Tensioning in Anterior Cruciate Ligament Reconstruction: A Systematic Review of Randomized Controlled Trials". *Arthroscopy: The Journal of Arthroscopic and Related Surgery* (In Press, 2008).
12. Reilly CW, McEwan JA, Leveille L, Perdios A, **Mulpuri KM**. "Minimizing Tourniquet Pressure in Pediatric Anterior Cruciate Ligament Reconstructive Surgery: A Blinded, Prospective Randomized Controlled Trial". *Journal of Pediatric Orthopaedics* (In Press, 2008).
13. Slobogean GP, Giustini D, Verma A, Slobogean BLT, **Mulpuri K**. "EMBASE, and Cochrane Index Most Primary Studies but not Abstracts included in Orthopaedic Meta-analyses". *Journal of Clinical Epidemiology* (In Press, 2008).
14. **Miyanji F**, Mahar A, Oka R, Newton PO. "Biomechanical Differences between Transfacet and Lateral Mass Screw-Rod Constructs for Multi-level Posterior Cervical Spine Stabilization". *Spine*, Nov. 33(23): E865-9, 2008.
15. **Miyanji F**, Newton PO, Perry A, Vanvalin S, Pawlek J. "Is the Lumbar Modifier Useful in Surgical Decision Making?: Defining Two Distinct Lenke 1A Curve Patterns". *Spine*, Nov. 33(23):2545-51, 2008.
16. Wenger DR, Mubarak SJ, Henderson PC, **Miyanji F**. "Ligamentum Teres Maintenance and Transfer as a Stabilizer in Open Reduction for Pediatric Hip Dislocation: Surgical Technique and Early Clinical Results". *Journal of Children's Orthopaedics*, DOI:10.1007/s11832-2008-0103-3.
17. **Miyanji F**, Mahar A, Oka R, Pring M, Wenger DR. Biomechanical Comparison of Fully Versus Partially - Threaded Cancellous Screws for the Treatment of Slipped Capital Femoral Epiphysis". *Journal of Pediatric Orthopaedics*, Jan:28(1):49-52, 2008.

## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
Bracing in Adolescent Idiopathic Scoliosis Trial	CW Reilly		Canadian Institute of Health Research (CIHR)	\$59,000
Pediatric Orthopaedic Research Support	CW Reilly	F Miyanji	BCCH Foundation DuPuy	\$90,000
The Effect of Perthes Disease on Hip Cartilage: An International Collaboration	D Wilson	K Mulpuri	Vancouver Coastal Health Research Institute	\$12,100
The Effect of Perthes Disease on Hip Cartilage	K Mulpuri		Angela Kuo Award: POSNA	\$14,889
IPOS Attendance & Surgical Hip Dislocation Training	K Mulpuri		OPSEI	\$4,000 (NC)
Florence E. Highway Student Travel Award	A Reza-Merali		UBC Faculty of Medicine	\$500
Florence E. Highway Student Travel Award	A Dobbe		UBC Faculty of Medicine	\$500
Florence E. Highway Student Travel Award	G Lennox		UBC Faculty of Medicine	\$500
Florence E. Highway Student Travel Award	G. Noble		UBC Faculty of Medicine	\$500

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Dr. Jeffrey Pike	Orthopaedic Resident
Dr. Jeffrey Pike	Orthopaedic Resident
Dr. Shalinder Arneja	Orthopaedic Resident
Dr. Michael Weber	Orthopaedic Resident
Dr. Parth Lodhia	Orthopaedic Resident
Dr. Fay Leung	Orthopaedic Resident
Dr. Catherine O'Brien	Orthopaedic Resident
Dr. Kelly Apostle	Orthopaedic Resident

Dr. Darin Davidson	Orthopaedic Resident
Dr. Jason Bourque	Orthopaedic Resident
Dr. Anthony Costa	Orthopaedic Resident
Dr. Tamim Umran	Orthopaedic Resident
Dr. Dina Popovic	Orthopaedic Resident
Dr. Michael McConkey	Orthopaedic Resident
Dr. Duncan Jacks	Orthopaedic Resident
Dr. James Douglas	Orthopaedic Resident
Dr. Ravi Ghag	Orthopaedic Resident

Dr. Emily Dodwell	Orthopaedic Resident
Dr. Luke Pugh	Orthopaedic Resident
Dr. Renjit Varghese	Orthopaedic Fellow
Dr. Soledad Acerenza	Orthopaedic Fellow
Dr. David Hollinghurst	Orthopaedic Fellow
Dr. Ayman Tadros	Orthopaedic Fellow
Dr. Davor Saravanja	Orthopaedic Fellow
Dr. Sean Comstock	Orthopaedic Fellow
Students	Year 2 Medical Student: 6 year 3 Pediatric Medical Student: 33 Year 3 Medical Student: 3 Year 4 Medical Student: 7 Year 4 Pediatric Medical Student: 1 BCIT School of Prosthetics & Orthotics Student: 23 Orthopaedic Resident, Manitoba: 1 Physical Medicine Resident, UBC: 1 Podiatry Resident, UBC: 1 Pediatric Resident, UBC: 2 Pediatric Emergency Fellow: 1 Pediatric Emergency International Fellow: 2 Neurology Fellow: 1 Physiotherapy Student, UBC: 5 Physiotherapists: 3

## HONOURS AND AWARDS

Recipient	Name of Award	Date Received
CW Reilly	Excellence in Education Award Recipient, BCCH	2008
K Mulpuri	Excellence in Education Award Recipient, BCCH	2008
K Mulpuri	Annual Resident Teaching Award, Department of Orthopaedics, Faculty of Medicine, UBC	2008
K Mulpuri	Angela S.M. Kuo Memorial Award, Pediatric Orthopaedic Society of North America	2008

## COMMITTEE PARTICIPATION

### UBC

1. Head, Department of Orthopaedics, Division of Paediatric Orthopaedics
2. Member, Orthopaedic Academic Council Committee
3. Member, Faculty Advisory Committee
4. Member, Promotions Committee, Orthopaedics
5. Member, Trauma Division Committee, Division of Orthopaedics
6. Member, Clinical Ethics Research Board

### BCCH

7. Head, Department of Paediatric Orthopaedics, Section of Surgery (CW Reilly)
8. Medical Director, Shriner's Gait Lab, Sunny Hill Health Centre
9. Member, Osteoporosis Group
10. Member, Pain Service Committee
11. Member, Trauma Committee
12. Member, Research Committee on Child Restraint Seat Safety
13. Member, Scientific Director, Office of Pediatric Surgery Evaluation and Innovation
14. Representative, CFRI Acute Care and Surgical Cluster



## Other

15. Member, British Columbia Medical Association
16. Member, Canadian Medical Association
17. Member, British Columbia Orthopaedic Association
18. Member Pediatric Orthopaedic Society of North America
19. Member, Association of Surgical Educators
20. Member, Canadian Orthopaedic Association
21. Member, Scoliosis Research Society
22. Member, Canadian Spine Society
23. Member, Royal College Subspecialty Committee
24. Member, BCIT Program Advisory Committee
25. Member, Outreach Kootenay Lake Regional Hospital
26. Member, BC College of Physicians & Surgeons of Canada
27. Member, Association of Children's Prosthesis & Orthotic Clinics
28. Member, Advisory Panel, Running Room of Canada
29. Member, CP Association of Canada, Sports Classifier
30. Classifier, Cerebral Palsy ISRA, International Soccer Tournament, Langley, BC
31. Classifier, Sportsfest 2008, Surrey, BC
32. Classifier, Power Soccer Tournament, BC
33. Classifier, Total Soccer Systems, Richmond, BC
34. Member, Gait and Clinical Motion Analysis Society
35. Member, American Academy of Cerebral Palsy and Dev. Medicine
36. Member, Canada Steering Committee Botulinum toxin
37. Member, VANOC
38. External Examiner, Canadian Association Sports Medicine
39. Instructor, Running Room Canada
40. Member, Board of Directors Boccia World Games
41. Member, American Academy of Orthopaedic Surgeons
42. Member, Association of Bone and Joint Surgeons
43. Member, Canadian Sarcoma Group
44. Member, Children's Oncology Group - Bone Tumor Steering Committee, Soft Tissue Sarcoma Steering Committee
45. Member, Limb Lengthening and Reconstructive Society ASAMI North America
46. Member, Musculoskeletal Tumor society
47. Member, Orthopaedic Research Society
48. Member, Intraoperative Imaging Society
49. Reviewer, Journal of Bone and Joint Surgery
50. Reviewer, Clinical Orthopaedics and Related Research
51. Reviewer, Pediatric Blood and Cancer Journal
52. Consultant, BC Cancer Agency
53. Member, MHE Coalition Medical & Scientific Advisory Board
54. BC Representative for the Ethics Committee, Canadian Orthopaedic Association
55. Member, Royal College of Physicians & Surgeons of Canada Examining Board
56. Reviewer, Prenatal Diagnosis
57. Member, Karnataka Medical Council
58. Member, Karnataka Orthopaedic Association
59. Member, Indian Orthopaedic Association
60. Member, Paediatric Orthopaedic Society of India
61. Member, Asia Pacific Orthopaedic Association
62. Member, Western Society for Pediatric Research
63. Member, Evidence Based Medicine Committee of Pediatric Orthopaedic Society of North America
64. Reviewer, Journal of Pediatric Orthopaedics
65. Reviewer, Journal of Spine
66. Reviewer, Journal of Clinical Epidemiology
67. Reviewer, Western Society for Pediatric Research, Regional Meeting
68. Reviewer, Canadian Institutes of Health Research
69. Core Member, HARMS Study Group

## PROJECTS AND INITIATIVES IN PROGRESS

### Work Submitted

1. Choit RL, **Reilly CW**, "Femoral Avulsion of the Anterior Cruciate Ligament in a 12-Year Old Boy following a Hyperextension Injury". Submitted to J Orthop Trauma, April 2008.
2. Davidson D, Davdison S, Perdios A, **Reilly CW**, "Psychiatric Disorder Associated with Surgical Management of Scoliosis: A Pilot Study of a Screening Tool". Submitted to Spine, January 2009.
3. Furey MJ, Arneja S, **Alvarez CM**, Reilly CW, "Segond Fractures - Not Necessarily Pathognomonic of ACL Injury in the Pediatric Population". submitted to Clinical Journal of Sports Medicine, May 2008.
4. **Alvarez C**, De Vera M, Chhina HK, Williams L, Durlacher K, Kaga S. "The Use of Botulinum Type A Toxin in the Treatment of Idiopathic Clubfoot: Five-Year Follow-Up". Submitted to Journal of Pediatric Orthopaedics. Accepted March 2009.

### Work In Progress

#### Dr. Reilly

5. "The Effect of Femoral Nerve Block on Opioid Requirements following Anterior Cruciate Ligament Reconstruction in the Paediatric Population: A Double Blind, Prospective, Randomized Controlled Trial - Data Collection" (data almost completed).
6. "Cervical Spine Injuries & Helmets" (helmet testing underway).
7. "BrAIST: A Randomized Control Trial on Bracing Vs Watchful Waiting in Patients with Adolescent Idiopathic Scoliosis" (data collection ongoing).
8. "Seating Pressure following Spine and Hip Surgery in Patients with Neuromuscular Disease" (protocol development ongoing).
9. "PCA Vs Morphine Utilization following Posterior Instrumentation for Idiopathic Scoliosis" (manuscript preparation).
10. "Mental Health Disturbance in Adolescents following Acute Knee Injury (J Douglas)" (protocol development).
11. "Risk Factors for Psychiatric Disorders Associated with Adolescent Idiopathic Scoliosis" (ethics approval received data collection to begin).
12. "The Impact of Scoliosis and Wait Times on Treatment and Outcomes" (data collection).

#### Dr. Miyanji

13. "Harms Study Group - Prospective Study of Scheuermann's Kyphosis" (data collection ongoing).
14. "Harms Study Group - Prospective Study of Scoliosis in Children with Cerebral Palsy" (data collection ongoing).
15. "Harms Study Group - Prospective Study of Motion Preservation Evaluation Below Fusions of the Thoracic Spine in Adolescent Idiopathic Scoliosis" (data collection ongoing).
16. "A Prospective, Multi-center Database Registry of the DePuy Spine Harms Study Group" (data collection ongoing).
17. "Scoliosis and Wait Times - Agreement Study with Three Paediatric Orthopaedic Surgeons: Comparing Predicted Treatment and Outcomes at 50o versus 90o in the Same Patient" (submission preparation).
18. "Scoliosis and Wait Times" (PHSA grant submission preparation underway).
19. "Adolescent Idiopathic Scoliosis: Anterior and Posterior Instrumentation Vs Posterior Instrumentation alone" (protocol development).
20. "Adolescent Idiopathic Scoliosis: Sagittal Alignment" (subject list being generated).
21. "C1 Lateral Mass Screw Fixation in Children: Indications, Technique and Outcome" (chart review underway).
22. "The Relationship between Body Mass Index and Pedicle Morphology in Adolescent Idiopathic Scoliosis: A Computerized Tomography Study" (protocol development).

#### Dr. Beauchamp

23. Book Chapter: "Gait"
24. "MOBILITY (MDs on Botox® Utility)- Observational Database designed to obtain patient reported outcomes following treatment with Botox®" (follow-up ongoing).
25. "Cerebral Palsy Allergan Practice Assessment Program" (follow-up ongoing).
26. "Midfoot Break: The Development of a Classification System" (ethics underway)
27. "Long Term Follow-up Idiopathic Toe Walking".

Dr. Brown

28. "Intra-epiphyseal Resection and Autograft Reconstruction of the Proximal Tibia in Children with Osteosarcoma" - pending final manuscript update.
29. "Extremity Rhabdomyosarcomas D9803 - 1998-2006", Adding follow-up data for completion of outcome analysis; waiting for information from COG, March 2009.
30. "Review of Ewings Sarcoma of the Femur". All cases treated in 1986-2006 by the Pediatric Oncology Group and Children's Cancer Study Group Multi-disciplinary Review. Waiting for data from COG since September 2008.
31. "Results of Treatment of 71 Patients with Localized, Completely Resected (Group I) Alveolar Rhabdomyo-sarcoma on Intergroup Rhabdomyosarcoma Study Group (IRSG) Protocols - III and IV, 1984-1997". Raney RB, Anderson JR, Brown KLB, Huh WW, Maurer HM, Meyer WH, Parham DM, Rodeberg DA, Wolden SL, and Donaldson SS. For the Soft-Tissue Sarcoma Committee of the Children's Oncology Group. Submitted to COG Publication Office.
32. "Preliminary Experience Using PET/CT in Suspected Pediatric Bone and Soft Tissue Sarcomas". Byrne AT, Brown KLB, Weber M, Senger C, Rassekh R, Nadel HR. Charts and images reviewed ready for first draft of manuscript.
33. Establish Vancouver as a Center of Excellence for Fitbone Surgery in Canada
  - 1) Attend the first three Fitbone Surgeries in the USA Center of Excellence 2006
  - 2) Travel to Wittenstein-Intens Fitbone Factory to meet with company executives and tour the manufacturing plant in Igersheim Germany, September 2008
  - 3) Participate in a Fitbone Course with four other surgeons. The course included instruction on the reverse planning technique and case discussions of submitted Fitbone Surgeries. I was able to be a surgical assistant in a surgical case of SAA nail and observed two other surgeries - a TAA 1180 nail in a 9-year old boy with congenital femoral deficiency, and a TAA 1160 tibial nail. Munich, November 2008
  - 4) Perform the first Fitbone Surgery in Canada with two visiting surgeons from Dallas and Adelaide, BC Children's Hospital,

Vancouver, BC, March 3, 2009

5) Develop a business plan with Dr. Piotr Blachut at Vancouver General Hospital to perform ten Fitbone Surgeries per year - in development.

Dr. Alvarez

**34. Clubfoot:**

- a) Seven-year follow-up of the original cohort of clubfoot patients treated with Botulinum Toxin A
- b) Review of 300 Clubfoot Patients seen in Clubfoot Clinic
- c) Case Report: Peroneal Nerve Palsy in Clubfoot Population
- d) Case Report: Obturator Internus Nerve Evulsion.

**Hereditary Multiple Exostoses:**

- e) quality of Life in Hereditary Multiple Exostoses and Disease Specific Questionnaire
- f) Genotype-Phenotype: Quality of Life Correlation in Hereditary Multiple Exostoses

**Gait:**

- g) Pedobarographic Profile of Clubfoot Patients

**Idiopathic Toe Walking:**

- h) Early Effect of Botulinum Toxin Type A on Ankle Range of Motion in Children Diagnosed with Severe Idiopathic Toe Walking

Dr. Mulpuri

**Completed projects with articles in progress:**

35. Reilly CW, Mulpuri K, Choit RL. "Trans-Physal Anterior Cruciate Ligament Reconstruction in Skeletally Immature Patients.
36. Tennant S, Tredwell SJ, Mulpuri K. "Cost-effectiveness of Procedural Sedation in Paediatric Forearm Fracture Management".
37. Roche H, Tennant S, Tritt BL, Mulpuri K. "Iatrogenic Ulnar Nerve Injury following Treatment of Paediatric Supracondylar Fractures of the Humerus: Number Need to Harm".
38. Mulpuri K, Glissen E, Sawatzky BJ, Tritt BL. "Natural Evolution of Perthes' Disease in British Columbia".
39. Davidson D, Ghag R, Perdios A, Tredwell SJ, Beauchamp RD, Mulpuri K. "Inter and Intra-Observer Reliability of Avascular Necrosis in Slipped Capital Femoral Epiphysis".
40. Murnaghan ML, Slobogean BLT, Byrne A, Tredwell SJ, Mulpuri K. "The Effect of Surgical Timing on Operative Time and Quality

of Reduction in Type III Supracondylar Humeral Fractures in Children”.

**Completed projects with articles in progress:**

41. Mulpuri K, Reilly CW, Tredwell SJ. “Management of Displaced Supracondylar Fractures of the Humerus using Lateral Vs Cross K-Wires: A Prospective Randomized Clinical Trial” (data collection ongoing).
42. Reilly CW, Ansermino M, Mulpuri K, Purdy FR, Tredwell SJ. “The Effect of Femoral Nerve Block on Opioid Requirements following Anterior Cruciate Ligament Reconstruction in the Paediatric Population: A Double Blind, Prospective, Randomized Controlled Trial” (data collection ongoing).
43. Mulpuri K, Ansermino M, Montgomery C, Purdy R, Lehman W, Reilly CW, Tredwell SJ. “The Effect of Femoral Nerve Block on Morphine Requirements following Intramedullary Nailing of Femoral Fractures in Paediatric Patients”.
44. Mulpuri K, Slobogean GP, Tritt BL. “Inter and Intra-Observer Reliability of Classification Systems in Perthes’ Disease”.
45. Mulpuri K, Dodwell E, Slobogean BLT, Wilson D. “The Effect of Perthes’ Disease on Hip Cartilage” (pilot work ongoing).
46. Mulpuri K, Davidson D. “WOMAC - Validation and Reliability Testing of the Western Ontario and McMaster Osteoarthritis Scale Hip Score in Children and Adolescents with Perthes’ Disease” (data collection ongoing).
47. Reilly CW, Mulpuri K, Dobbe A, Noble G. “Long Term Follow-Up of Supracondylar Fractures of the Humerus: A Retrospective Review”.
48. Mulpuri K, Goetz T. “Distal Radio-Ulnar Joint Problems and Ulnar-Sided Wrist Pain” (protocol development).
49. Mulpuri K, McKay H, Burrows M. “Hand Dominance and Bone Response after a Distal Radius Fracture: A High Resolution peripheral- Quantitative Computed Tomography Study” (protocol development).





# THE DIVISION OF PEDIATRIC OTOLARYNGOLOGY

"In a year,  
approximately 8,000  
children are assessed  
in the Ear, Nose and  
Throat Clinic."



**TEAM: 2008-09****Faculty:**

**Dr. Frederick K. Kozak**  
Division Head

**Dr. Jeffrey Ludemann**

**Dr. Paul Moxham**

**Dr. Keith Riding**

**Support Staff:**

**Ms. Patsy Regan**  
Pediatric Otolaryngology  
Clinic Nurse

**Ms. Michele Freeman**  
Assistant to Dr. Kozak

**Ms. Nancy Davies**  
Assistant to Drs.  
Ludemann & Moxham

**Ms. Michele Poulsson**  
Assistant to Drs.  
Ludemann & Moxham

**Ms. Rhiannon Satherley**  
Assistant to Dr. Riding

**Research Co-ordinator /  
Assistant KoWest  
Otolaryngology  
Research Group**

**Dr. Shahnaz Atashband**

"Surgery ranges  
from myringotomy  
and tympanostomy  
tube insertion,  
adenoidectomy and  
tonsillectomy to  
cochlear implantation,  
bronchoscopy and  
airway reconstruction."

**HIGHLIGHTS AND ACHIEVEMENTS**

Dr. Frederick Kozak was promoted to Clinical Professor, Department of Surgery UBC and was also an invited guest speaker at the X Congreso De ORL Y Fonoaudiologia Pediatrica Y VI Congreso De La IAPO, Argentinian Otolaryngology Society, Buenos Aires, Argentina in April 30-May 2, 2008.

Dr. Jeffrey Ludemann was promoted to Clinical Associate Professor, Department of Surgery UBC.

Dr. Paul Moxham was promoted to Clinical Associate Professor, Department of Surgery UBC.

Dr. K. Riding completed the Home Study Course in Bird Biology August 2008 (Cornell Lab of Ornithology).

**PRESENTATIONS, LECTURES, AND FORMAL TEACHING****Presentations and Lectures:****Dr. Kozak**

1. The Otolaryngologic Manifestations of Tourette Syndrome. Grand Rounds, University of Manitoba, Winnipeg Manitoba, May 8, 2008.
2. Case Presentations in Pediatric Otolaryngology. Otolaryngology Resident Session, University of Manitoba, Winnipeg, Manitoba, May 8, 2008.
3. The Evolution of a Cochlear Implant Program. Guest Lecture, University of Manitoba, Winnipeg, Manitoba, May 9, 2008.
4. Al Eid HM, Dobson S, Krueger K, Kozak FK. Pediatric Cochlear Implant Patients: Are They Immunized as They Should Be: A Quality Assurance Study. CI-2008 International Conference, San Diego, Ca. May 2008. (podium Presentation)
5. American Bronchoesophagological Association Annual Meeting, Orlando, May 2008: MacNeil SD, Moxham JP, Kozak FK: Nasopharyngeal foreign bodies can mimic airway foreign bodies (poster).

6. McCaffrey L, Brooks E, Atashband S, Winstanley M, Dix D, Kozak FK. Hearing Loss in Pediatric Cancer Survivors with Risk Factors for Ototoxicity. American Society of Pediatric Otolaryngology, Orlando, Florida. May 3, 2008. (podium presentation).
7. UBC Division of Otolaryngology Grand Rounds. Cochlear Implantation and Vaccination: A QA Study, Hearing Loss in Pediatric Cancer Survivors. May 14, 2008.
8. Otology Panel. Moderator: BD Westerberg. Panelists: J Chen, M Bance, FK Kozak, J Rappaport. Canadian Society of Otolaryngology Annual Meeting. Jasper, Alta. June 2, 2008.
9. Mick P, Kozak FK, Riding KR, Ludemann JP, Moxham JP. Does Function Define Form? Sinonasal Development in Patients with Unilateral Choanal Atresia (podium presentation at the CSO Meeting, June 3, 2008).
10. European Society of Pediatric Otolaryngology Meeting, Budapest, Hungary, June 11, 2008: Kozak, FK, Atashband, S, Westerberg BD. A Systematic Review of the Incidence of SNHL in Neonates Exposed to Herpes Simplex Virus (podium presentation).
11. European Society of Pediatric Otolaryngology Meeting, Budapest, Hungary, June 11, 2008: Al Eid HM, Kozak, FK, Atashband, S, Chanoine, JP. Lingual Thyroid: Hormonal Suppression Therapy: A Systematic Review. (podium Presentation)
12. European Society of Pediatric Otolaryngology Meeting, Budapest, Hungary, June 11, 2008: Brown E, Chau J, Atashband S, Westerberg BD, Kozak FK. Neonatal Exposure to Toxoplasmosis: A Systematic Review. (podium presentation)
13. New Strategies in the Differential Diagnosis and Treatment of Red eye and Ear Infections for Family Physicians. New Westminster, B.C. June 26, 2008.
14. Management of the Retracted Tympanic Membrane. Current Techniques in Temporal Bone and Middle Ear Surgery Course. UBC, Vancouver Canada, July 16, 2008.
15. Management of Complications of Otitis Media. Current Techniques in Temporal Bone and Middle Ear Surgery Course. UBC, Vancouver Canada, July 16, 2008.
16. Lab Demonstrator/Mentor, Temporal Bone Hands on Course: Current Techniques in Temporal Bone and Middle Ear Surgery Course. UBC, Vancouver Canada, July 16-17, 2008.
17. Brooks E, Atashband S, McCaffrey L, Winstanley M, Dix D, Kozak FK. Acquired hearing loss in children with cancer. International Federation of the Hard of Hearing Conference, Vancouver, B.C. July 2008. (poster).
18. Brown E, Chau J, Atashband S, Westerberg BD, Kozak FK. Neonatal Exposure to Toxoplasmosis: A Systematic Review. 14th Annual W.B. & M.H. Chung Lectureship. Vancouver, B.C. November 3, 2008. (poster).
19. Cochlear Implantation in Pediatrics. Department of Audiology Masters Student Class, UBC. November 17, 2008.
20. Hands On Workshop for Family Physicians in Otolaryngology. BC Children's Hospital. November 17, 2008.
21. St. Paul's Hospital CME for Family Physicians Small Group Presenter. Pediatric Otology. November 19, 2008.
22. Chang E, Chau J, Atashband S, Westerberg BD, Kozak FK. A systematic review of pediatric sensorineural hearing loss in congenital syphilis. SENTAC, Boston, Mass. December 5, 2008.
23. Kozak FK, Westerberg BD, Thomas EE, Blondel-Hill E, Brunstein JD, Patrick DM. Is the healthy middle ear a normally sterile site? SENTAC, Boston, Mass. December 5, 2008. (podium presentation)
24. The Effect of the Health Care system on the Delivery of Care: A Panel Discussion. Moderator: Allan Seid. FK Kozak (Canada), D Carvalho (Brasil), (Israel), (Holland). Boston, Mass. SENTAC, December 5, 2008
25. McCaffrey L, Brooks E, Atashband S, Winstanley M, Dix D, Kozak FK. Audiological Monitoring in Pediatric Cancer Survivors with Risk Factors for Ototoxicity: A Quality Assurance Study. SENTAC, Boston, Mass. December 6, 2008. (podium presentation)
26. Beers A, Shahnaz N, Westerberg BD, Kozak FK. Wideband Reflectance in Normal School Aged Children and in Children with Otitis Media. SENTAC, Boston, Mass. December 6, 2008. (podium presentation).
27. Hands on Workshop in Otolaryngology for Emergency Room Fellows. BC Children's Hospital February 26, 2009.

28. UBC Division of Otolaryngology Grand Rounds. Interesting Cases. Sharma N, Fandino M, Kozak FK. Adenoidectomy in Conjoined Twins. March 4, 2009.

#### Dr. Moxham

29. American Bronchoesophagological Association Annual Meeting, Orlando, May 2008: Pace-Asciak P, Moxham JP: Coin trapped in a congenital esophageal diverticulum (poster).
30. American Bronchoesophagological Association Annual Meeting, Orlando, May 2008: MacNeil SD, Moxham JP, Kozak FK: Nasopharyngeal foreign bodies can mimic airway foreign bodies (poster).
31. American Society of Pediatric Otolaryngology Annual Meeting, Orlando, May 2008: Mickelson JI, Moxham JP, Durham JS: Masticator muscle atrophy following embolization of an angiofibroma (poster).
32. American Laryngological, Rhinological, and Otolological Society Annual Meeting, Orlando, May 2008: Moxham JP, Wong KKM, Kibblewhite DJ: Transforming growth factor beta-1 shows an incremental osteoinductive dose-response curve (podium).
33. American Laryngological, Rhinological, and Otolological Society Western Section Meeting, Lake Las Vegas, January 2009: MacNeil SD, Moxham JP: Floor of mouth dermoid cysts -- a systematic review (podium).
34. Otolaryngology Grand Rounds, Vancouver, February 2008: MacNeil SD, Moxham JP: Floor of mouth dermoid cysts.

#### Dr. Ludemann

35. Thamboo A, Nguyen T, Ludemann JP. Choking Prevention: Short-Comings of Traditional Public Education Campaigns and the Need for Web-Based Interactive Teaching Tools for Pre-Teens, Teenagers and Adults. Canadian Society of Otolaryngology Annual Meeting, June 3, 2008.
36. Thamboo A, Ludemann JP. Bridging the Gap in Medical Education on Upper Aerodigestive Foreign Bodies with Interactive Computerized Learning Modules. Canadian Society of Otolaryngology Annual Meeting, June 3, 2008.
37. Hartl T, Moxham JP, Ludemann JP, Rassekh R. Inflammatory Myofibroblastic Tumor of the Subglottis: Case in a 5-year-old

(poster presentation, Canadian Society of Otolaryngology Annual Meeting, June 2-3, 2008).

38. Mick P, Kozak FK, Riding KR, Ludemann JP, Moxham JP. Does Function Define Form? Sinonasal Development in Patients with Unilateral Choanal Atresia (podium presentation at the CSO Meeting, June 3, 2008).
39. Foreign Bodies in Children: Diagnosis, Treatment and Prevention; UBC 5th Annual Pediatric Emergency Update, April 25, 2008 (2 workshops; each 45 minutes).
40. Foreign Bodies in Little Airways: Diagnosis, Treatment and Prevention; BC Pediatric Society Update on Young Airways, Feb 11, 2009.
41. Panelist, Challenging Pediatric Airway Cases, Canadian Society of Otolaryngology Annual Meeting, Jasper, June 3, 2008.
42. Adderley RJ, Ludemann JP. Rational use of Hyperflex™ Tracheostomy Tubes, 12th International Conference on Home Mechanical Ventilation, Barcelona, Spain, March, 2009 (poster)

#### Formal Teaching:

43. Oral Exam Preparations for UBC Otolaryngology and UBC Pediatrics final-year residents: Dr. Moxham. Oral Exam Preparations for UBC Otolaryngology final-year residents: Dr. Kozak.
44. UBC Medical INDE 410, Clinical Skills in Otolaryngology, April 22, 2008: Dr. Ludemann.

#### PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

#### Dr. Kozak

1. Magnet dislodgement in cochlear implantation: correction utilizing a lasso technique. Mickelson JI, Kozak FK. *Int J Pediatr Otorhinolaryngol.* 2008 Jul;72(7):1071-6.
2. A systematic review of the incidence of sensorineural hearing loss in neonates exposed to Herpes simplex virus (HSV). Westerberg BD, Atashband S, Kozak FK. *Int J Pediatr Otorhinolaryngol.* 2008 Jul;72(7):931-7.
3. A systematic review of pediatric sensorineural hearing loss in congenital syphilis. Chau J, Atashband S, Chang E, Westerberg BD, Kozak FK. *Int J Pediatr Otorhinolaryngol.* 2009 Mar 23.



4. A systematic review of neonatal toxoplasmosis exposure and sensorineural hearing loss. Brown ED, Chau JK, Atashband S, Westerberg BD, Kozak FK. *Int J Pediatr Otorhinolaryngol*. 2009 May;73(5):707-11.
5. Is the healthy middle ear a normally sterile site? Westerberg BD, Kozak FK, Thomas EE, Blondel-Hill E, Brunstein JD, Patrick DM. *Otol Neurotol*. 2009 Feb;30(2):174-7.
6. Benjamin Achtem, Shahnaz Atashband, Bruce Bjornson, Frederick K. Kozak. Anterior Inferior Cerebellar Artery Syndrome Initialling Presenting as a Unilateral Vestibulocochlear Loss in a 6 Year-Old Boy. *The Journal of Otolaryngology-Head and Neck Surgery*. Volume 37, Number 4, August 2008 E102-104.
7. Frederick K. Kozak, Erik Brown, Shahnaz Atashband, Justin Chau, Brian D. Westerberg. Sensorineural Hearing Loss and Neonatal Exposure to Herpes Simplex Virus (HSV) and Toxoplasmosis. VII IAPPO Manual of Pediatric Otorhinolaryngology. Eds. T. Sih, A. Chinski, R. Eavey, R. Godinho. Editora e Grafica Vida & Consciencia, Sao Paulo, Brasil.

#### Dr. Moxham

8. Penetrating and blast ear trauma: 7-year review of two pediatric practices. Mick P, Moxham P, Ludemann J. *J Otolaryngol Head Neck Surg*. 2008 Dec;37(6):774-6.
9. Transforming growth factor-beta1 shows an incremental osteoinductive dose-response relationship. Moxham JP, Wong KK, Kibblewhite DJ. *Laryngoscope*. 2009 Jan;119(1):126-30.
10. Role of Tonsillectomy in PFAPA Syndrome. Wong KK, Finlay JC, Moxham JP. *Arch Otolaryngol Head Neck Surg*. 2008 Jan;134(1):16-9.

#### Dr. Ludemann

11. Ludemann JP, Dehghani N. Ingested Foreign Bodies in Children -BC Children's Hospital Emergency Room Protocol. *BCMJ*, 50(5), 257-261 and on-line, June 2008.
12. Ludemann JP, Dehghani N. Aspirated Foreign Bodies in Children -BC Children's Hospital Emergency Room Protocol. *BCMJ*, 50(5), 252-256 and on-line, June 2008.
13. Dewji ZA, Gardiner J, Ludemann JP. Young Child with Cystic Fibrosis and Destructive Sinonasal Polyposis which resolved Oral Steroids and Antifungals. *Int J Ped Otorhinolaryngol Extra*,

October 2008.

14. Pace-Asciak P, Chang E, Ludemann JP. Bronchial Button Backing: a frightening foreign body. Submitted to *Int J Ped Otorhinolaryngol Extra*, online Sept, 2008.
  15. Stovski E, Mickelson JI, Ludemann JP. Giant Retropharyngeal Abscess: Minimally Invasive Surgical Management. *Int J Ped Otorhinolaryngol Extra* 4, 92-95, 2009.
  16. Dance D, Riley M, Ludemann JP. Removal of ear canal foreign bodies: What can go wrong and when to refer. *BCMJ*, 51(1), 20-24, Jan-Feb 2009.
- #### Dr. Riding
17. Altkorn R, Chen X, Milkovich S, Stool D, Rider G, Bailey CM, Haas A, Riding KH, Pransky SM, Reilly JS. Fatal and non-fatal food injuries among children (aged 0-14 years). *Int J Pediatr Otorhinolaryngol*. 2008 Jul;72(7):1041-6.
  18. Chapter on Otology in Chinese Textbook of "Sequential Treatment To Cleft Lip/Palate Management".

## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
CMV and Hearing Loss	FK Kozak	E Castillo	BCCH Foundation	\$30,000
Interactive Computerized Educational Modules on Choking in Children for Health Professional Students	J Ludemann	A Thamboo	UBC Teaching and Learning Enhancement Fund	\$2,600
Choking Prevention: animated video and interactive website (educational validation)	S Nashson, Associate Professor of Education, UBC	J Ludemann	UBC Hampton Fund	\$50,350

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Numerous medical students, pediatric residents, family practice residents and denatal residents from the UBC program as well as from other Canadian Medical School programs spend time in the Pediatric Otolaryngology clinic with the 4 attending physicians.	
Anali Dadgostar	Otolaryngology Resident
Robert Mondin	Otolaryngology Resident
Anil Sharma	Otolaryngology Resident
Estelle Chang	Otolaryngology Resident
Pia Pace-Asciak	Otolaryngology Resident
Danielle MacNeil	Otolaryngology Resident
Bedy Lau	Otolaryngology Resident
Erik Brown	Otolaryngology Resident
Paul Mick	Otolaryngology Resident
Kevin Wong	Otolaryngology Resident
Nael Shoman	Otolaryngology Resident
Jon Mickelson	Otolaryngology Resident
Dr. Marcela Fandino (Clinical Fellow) and Dr. Luthiana Carpes (Clinical Research Fellow)	2008-2009, supervised by Dr. Kozak

Dr. Hazim M. Al Eid (Clinical Fellow)	2007-2008 supervised by Dr. Kozak
Dr. Mathew Clark, Visiting Adult Otolaryngology Fellow	March 2009

## COMMITTEE PARTICIPATION

### Dr. Kozak

#### BCCH and C&W

1. C&W Site Redevelopment Steering Committee
2. C&WHC Redevelopment Project Advisory Committee
3. BCCH Strategic Planning Steering Committee: Surgical Representative
4. Surgical Services Advisory Committee
5. BCCH Department of Surgery Surgical Cabinet
6. MSA (Medical Staff Association) Site Redevelopment Committee

#### UBC

7. Otolaryngology Executive Committee: BCCH Division Head Representative
8. Pediatric Otolaryngology Fellowship Program Director

#### Other

9. BCMA Otitis Media Guidelines Committee
10. Chair, Medical Advisory Committee, B.C. Early Hearing Program
11. IAPO (International Association of Pediatric Otolaryngology) Board Member: Canadian Representative
12. SENTAC (Society of Ear Nose and Throat Advances in Children) Board Member
13. CI-2009 12th International Symposium on Cochlear Implants in Children Organizing Committee
14. National Pediatric Surgical Wait time Project: B.C. Pediatric Otolaryngology Representative

#### Dr. Moxham

15. Otolaryngology Residency Training Committee: Chair
16. Otolaryngology Executive Committee: Postgraduate education representative
17. Full Faculty Residency Education Committee: Otolaryngology representative
18. Core Surgery Education Committee: Otolaryngology representative
19. Otolaryngology Fellowship Training Committee: Residency program representative

#### Dr. Ludemann

20. UBC Undergraduate Education Committee: Division of Otolaryngology Representative

7. Ototoxicity and end of life quality of care
8. Role of immune cell subsets in control of EBV infection

#### Dr. Moxham

9. Rabbit model examining effect of surgical manipulation on septal cartilage growth.
10. Rabbit model examining relationship and potential synergy of transforming growth factor beta1 and oncostatin-M.
11. Database review of pediatric vertigo patients.
12. Systematic review of pediatric presentations of Meniere's Disease.
13. Case report on mastoiditis caused by Cat-Scratch Disease.
14. Vocal Cord Immobility and Pediatric Cardiac Surgery

#### Dr. Ludemann

15. Be Smart, Don't Choke educational video completed
16. www.dontchoke.net educational website in progress
17. Vocal Cord Immobility and Pediatric Cardiac Surgery

#### Dr. Riding

18. Vocal Cord Immobility and Pediatric Cardiac Surgery

## PROJECTS AND INITIATIVES IN PROGRESS

#### Dr. Kozak

1. CMV and Hearing Loss
2. Vocal Cord Immobility and Pediatric Cardiac Surgery
3. Cognitive Disability and Cochlear Implantation
4. Pediatric Cochlear Implantation at BCCH:A Retrospective Review
5. SNHL and Pediatric Cancer Survivors
6. Congenital Diaphragmatic Hernia and Progressive SNHL

# THE DIVISION OF PEDIATRIC PLASTIC SURGERY





**TEAM:** 2008-09

**Faculty:**

**Dr. Cynthia Verchere**  
Division Head

**Dr. Douglas J Courtemanche**

**Dr. Kevin Bush**

**Dr. James Boyle**

**Dr. Sean Bristol**

**Dr. Mark Hill**

**Dr. Nancy Van Laeken**

**Administrative Assistants:**

**Ms. Norine Mayede**

**Ms. Rupinder Parhar**

**Ms. Lee Heng**

**Research Team**

**Ms. Angie Perdios**

"All of the Division members maintain some area of special expertise within the spectrum of pediatric plastic surgical practice."

## HIGHLIGHTS AND ACHIEVEMENTS

Dr. Verchere has been a surgical consultant for Operation Rainbow since 2005 and this year marked another successful mission. In November, along with an inter-disciplinary health care team, she travelled to Cheychemneas Hospital in Cambodia where she was involved in the surgical reconstruction of a variety of abnormalities to children and adults of the local communities.

2008 also marked an academic promotion for Dr. Verchere who is now a Clinical Associate Professor with the Faculty of Medicine.

Dr. Courtemanche continued his involvement in the UBC Plastic Surgery Residency Training committee. Dr. Courtemanche is also an avid member of the Docs-on-Bikes, Rotary Bike-a-thon Fundraising Team. He has also continued his involvement with Operation Rainbow and other surgical missions.

Operation Rainbow 2009 - Cambodia



## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

### Presentations:

1. Verchere C. "Laceration Repair" 6th Annual Pediatric Emergency Medicine Update, April 25, 2008.
2. Hallgren N, Verchere C "A Question of Ethics", Canadian Society of Plastic Surgeons Annual Meeting, St. John's NL, June 1, 2008.
3. Verchere C, Courtemanche D "A Question of Ethics", Office of Pediatric Surgical Evaluation and Innovation Rounds, Nov 2008.
4. Cheng JS, Prince JM, Verchere C "Teaching practices of cleft lip and palate surgeons in North America", Plastic Surgery Annual Research Day, Faculty of Medicine, University of British Columbia, Vancouver, BC April 3, 2009.
5. Courtemanche DJ. A review of cost-chondral arthroplasty for TMJ reconstruction. AAPS, Boston, MS, April 2008.
6. Courtemanche DJ, Lennox PA, Collins J. The teaching perspectives of plastic surgeons. AAPS, Boston, MS, April 2008.
7. Breugem C, Courtemanche DJ, MinkvanderMolen A. Robin sequence: resolving nosological confusion. ACPA, Philadelphia, PA, April 2008.
8. Hallgren N, Duffy D, Courtemanche DJ, Verchere C. A question of ethics: how ethics applications affect the research of clinicians. CSPS, St. John's NF, June 2008.
9. Lactosorb fixation in craniofacial reconstruction. Cheng JS, Gregory S, Courtemanche DJ. CSPS, St. John's NF, June 2008.
10. Courtemanche DJ. A comparison of three different methods of resident evaluation. CSPS, St. John's NF, June 2008.

### Lectures:

11. Verchere C "Burns" BC Children's Hospital Nursing Education Day, Nov 4, 2008.

### Formal Teaching:

Undergraduate Teaching, Faculty of Medicine, University of British Columbia

12. Verchere C (speaker and panelist) "Plastic Surgery". Surgical Mentorship Group Evening, Oct 28, 2008.
13. Verchere C (speaker and panelist) "Women in Medicine". Surgical

Mentorship Group Evening, Oct 28, 2008.

14. Verchere C "Burn Seminar". 3rd Year Medical Students, Dec 9, 2008.

Postgraduate Teaching, Faculty of Medicine, University of British Columbia

15. Verchere C "Brachial Plexus update and clinical cases", Jan 24, 2008
16. Verchere C and Courtemanche D "Microtia", Mar 26, 2009

## PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. Jones, NW, Verchere, C. The Dirty Lip Trick. Canadian Journal of Plastic Surgery Vol 16(4) 228, 2008.
2. Breugem C, Courtemanche DJ, Olesen P, Fitzpatrick DG. Subperiosteal release of the floor of the mouth in airway management in Pierre-Robin sequence. J Craniofac Surg 19(3)609-615, 2008.
3. Breugem C, Courtemanche DJ. Portable ultrasound-assisted injection of OK-432 in lymphatic malformations by the plastic surgeon. J Plast Reconstr Aesthet Surg 61(10)1269-1270, 2008.

### Abstracts

1. Peters DA, Courtemanche DJ. The role of platelet gel and calcium coated lactosorb membranes in healing critical calvarial defects. Can J Plast Surg 15(2):93, 2007.
2. Macadam SA, Ho AL, Lennox PA, Courtemanche DJ, Warren RJ. Subfascial versus subpectoral breast augmentation: Is there a difference in the rate of capsular contracture. Can J Plast Surg 15(2):93-4, 2007.

## STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Dr. Nick Wilson Jones	Clinical Fellow
Dr. Jason Neil-Dwyer	Clinical Fellow
Dr. Avi Goldberg	Dental Researcher
Dr. Rod Chew	Craniofacial Fellow

## COMMITTEE PARTICIPATION

1. Verchere C. BC Children's Hospital Surgery Accreditation Committee, 2008
2. Verchere C. Editorial Board, British Columbia Medical Association Journal, Jan 2009 to present

## PROJECTS AND INITIATIVES IN PROGRESS

### Dr. C. Verchere (collaborators)

1. Teaching Practices among Cleft Lip and Palate Surgeons in North America (JM Prince; Jenny Cheng)
2. Brachial Plexus Injuries: the Impact on Balance and Coordination following Conservative Treatment (Doria Bellows)
3. The use of Sup-ER Splints to Improve Shoulder External Rotation in Children with Brachial Plexus Injuries (Kim Durlacher)
4. Minimal Access Sural Nerve Harvest during the repair of the Brachial Plexus following Injury (Iman Hemmati)
5. VAD placement: Does location on the child's torso have an impact on the long-term scar quality?
6. Body Dysmorphic Disorder: a Case of Penetrating Needles requiring Surgical Removal (Adelyn Ho; Nancy Van Laeken)

### Dr. D. Courtemanche (collaborators)

7. Safety Scalpels: A Systematic Review (Brian Westerberg)
8. Maxillary Outgrowth after Repair of a Cleft of the soft Palate: An Analysis between the Wardill-Kilner and Furlow palatoplasty (Paul Pocock, Courstian Beurgeum, Nasim Abedi-Moghadan, Avi Goldberg)
9. The Role of Experts in Teaching in a Plastic Surgery Residency Program (Jason Neil-Dwyer)

### Dr. K. Bush (collaborators)

10. Parry-Romberg's Disease: a case series and description of orbital growth related to age of onset (Julie Prendiville)
11. The Educational Experience of Overseas Missions for Trainees

# THE DIVISION OF PEDIATRIC UROLOGY

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"In a year, approximately 6,000 patients are assessed in the ambulatory clinic. In addition, the multi-disciplinary team members conduct weekly half-day myelomeningocele clinics for BC spina bifida patients."





**TEAM:** 2008-09

**Faculty:**

**Dr. Andrew E MacNeily**  
Division Head

**Dr. John ST Masterson**

**Dr. Kourosh Afshar**

**Other:**

**Ms. Heidi Barber**  
Pediatric Urology  
Nurse Clinician

**Dr. Farahnaz Ganjizadeh**  
Pediatric Urology  
Research Associate

**Ms. Danielle Baghii**  
Administrative Assistant

**Ms. Maria Chaperon**  
Administrative Assistant

“The BCCH-based  
Urology program  
provides surgical  
treatment of all  
aspects of congenital  
and acquired  
genitourinary disease.”

## HIGHLIGHTS AND ACHIEVEMENTS

As the only pediatric urology service in British Columbia, the Division of Pediatric Urology at BC Children's performed more than 900 surgical procedures and cared for over 6,000 children in our ambulatory clinic this year. Last year realized many successes for our small team which are detailed in this report. Some notable highlights include the following: Dr. Masterson was promoted to Associate Head of Clinical Affairs, a position of great responsibility with respect to the day-to-day management of the operating rooms. Dr. Masterson has also maintained a strong presence in undergraduate Medical Education as the UBC representative to the Canadian Healthcare Education Common, his ongoing deployment of the Web-based PBL curriculum, integration of iClicker technology to UBC, and development of an electronic library of teaching images for the Dept. of Urological Sciences. Dr Afshar was cross-appointed to the School of Public Health in recognition of his work in clinical epidemiology subsequent to attainment of his Masters degree in Health Sciences. He was also promoted to the position of secretary-treasurer of Pediatric Urologists of Canada (PUC) our national subspecialty organization.

Locally, Dr. Afshar has been innovative in establishing collaborative clinical research projects by linking with the UBC Bladder care centre and with robotic surgeons at VGH. Dr MacNeily continues in his role as a Royal College examiner, and as Postgraduate Educational director for the Department of Urological Sciences for which he was awarded “teacher of the year” by the UBC Urology residents. Clinical excellence within our Division was recognized this year when Dr. MacNeily won the annual Dr. Parminder Singh award for outstanding consultant services to BC Pediatricians. Academic productivity was also excellent with a total of 37 presentations, 21 publications, and 9 new or ongoing grants. Academic excellence by Drs. MacNeily and Afshar was recognized with achievement of the first prize in clinical research at the American Academy of Pediatrics Section on Urology for their work on Health Related Quality of Life in Spina Bifida following bladder

reconstruction. In addition they were awarded the Canadian Urological Association prize essay for their work mentoring Dr. Kiara Hennessey, a UBC Urology resident, on a bibliometric study of the top 100 cited articles in the Urological Literature.

## PRESENTATIONS, LECTURES, AND FORMAL TEACHING

### Dr. MacNeily

1. Nguan C, Haden K, MacNeily AE: Uropedia: an online urology community resource for urological trainees. Canadian Urological Association Edmonton Alberta June 2008.
2. Afshar K, Chang-Kit L, MacNeily AE: Current practices in pediatric lower urinary tract dysfunction: a survey of Canadian pediatric Urologists Canadian Urological Association Edmonton Alberta June 2008.
3. Hennessey K, Afshar K, MacNeily AE: The top 100 cited articles in Urology Canadian Urological Association Edmonton Alberta June 2008.
4. MacNeily AE, Afshar K, Jafari S, Mirbagheri A, Development of a symptom score for dysfunctional elimination syndrome American Academy of Pediatrics Section on Urology Boston Ma USA Oct 2008.
5. MacNeily AE, Jafari S, Scott H, Dalgetty A, Afshar K: Health Related Quality of Life in Spina Bifida: A prospective assessment before and after Lower Urinary Tract Reconstruction. American Academy of Pediatrics Section on Urology Boston Ma USA Oct 2008.
6. MacNeily AE, Afshar K, Seth A, Jafari S: Publications by the American Academy of Pediatrics Section On Urology: The Quality of Research Design and Statistical Methodology. American Academy of Pediatrics Section on Urology Boston Ma USA Oct 2008.
7. MacNeily AE Pediatric and Adolescent Medicine update - "Work up after UTI in Young Children" Feb 2009.
8. MacNeily AE UBC Dept of Urological Sciences Get to Know Urology Day: "Postgraduate Education" Feb 2009.

9. MacNeily AE "The need for further surgery following augmentation cystoplasty" Presented at the annual Canadian Urological Association meeting, Pediatric Educational Forum Edmonton Alberta June 2008.
10. MacNeily AE "The National Surgical Wait-time project" Presented to the Pediatric Urologists of Canada (PUC) Edmonton Alt. June 2008.
11. MacNeily AE "Lower urinary tract reconstruction in Children: A lesson in humility" Presented to the Division of Pediatric Urology, Hospital For Sick Children, Toronto Ontario. Nov 2008.
12. MacNeily A Society of University Urologists and Program Directors of the American Urological Association. "Canadian Residency Core Curriculum: Operations/Procedures" Orlando Fla USA May 2008.
13. MacNeily AE: INDE 410 Male genital exam lecture to UBC students.
14. MacNeily AE: Phase IV surgery oral examinations.
15. MacNeily AE: Dept of Urological Sciences annual Postgraduate OSCE examination.

### Dr. Afshar

16. Near infra-red Spectroscopy in assessment of voiding function of children: Department Of Urology University of California Irvine, Nov 2008.
17. Near infra-red Spectroscopy in assessment of voiding function of children: Pediatric Urologists of Canada annual meeting, Edmonton AB, June 2008.
18. Vesico-Ureteral Reflux: Evidence based approach: First Annual Meeting of Western Pediatric Urologists of Canada, Calgary, AB Feb 2008.
19. Use of Partial Nephrectomy in the Treatment of Wilms' Tumor: Academic Day, Division of General Surgery BC Children's Hospital Aug 2008.
20. Urological Trauma in Children: Academic Day. Department of Emergency Medicine, BC Children's Hospital August 2008
21. UBC Department of Pediatrics Updates: Dysuria in children, April 2008.
22. Phase IV Surgery Oral Exam.

23. INDE 410 Male Genital Exam lecture.
24. Phase IV Medical students Surgery Seminar.
25. FERGUSON Lecture: Embryologic correlations of congenital GU anomalies.
26. Urology resident Annual OSCE exam.
27. Urology residents Academic Half Day: Critical appraisal of literature.
28. UBC Department of Urologic Sciences evidence based journal club (quarterly).
29. Afshar K, Ngan A, MacNeily A, Longpre M: A Predictive Model for resolution of Antenatally Diagnosed Hydronephrosis. Accepted for presentation, Canadian Urological Association meeting June 2009, Toronto.
30. C.M. Sutton, R.K. Masson, S.H. Chan SH, R. Hamidizadeh, J.K. Lee, V.A. Rowley, K. Afshar, R.F. Paterson, C. Zwirewich, B.H. Chew Diabetes and hypertension prevalence 20 years following extracorporeal shockwave lithotripsy (ESWL) Presented at the Western Medical Student research Forum, 2009 Carmel CA.

#### Dr. Masterson

31. Masterson, JST Common Foreskin Dilemmas, St Paul's Hospital CME course, November 21.
32. Masterson, JST Pediatric UTIs Initial Workup and When to Refer, St Paul's Hospital CME course.
33. Masterson, JST Development of Online Teaching Resources in Urology. 2008 e-Learning Open House, UBC.
34. Masterson, JST Design And Integration Of Online Case Based Interactive Multimedia: Problem Oriented Learning In Urology Using Standardized Software. CUA Annual Meeting.
35. Masterson, JST Design And Integration Of Online Case Based Interactive Multimedia: Problem Oriented Learning In Urology Using Standardized Software. 2009 Canadian e-Learning Conference.
36. Masterson, JST Workshop-Building Virtual Patient Cases: An Introduction to the Process of Case Development Canadian Conference on Medical Education
37. Masterson, JST The design and integration of a novel online

Problem-based learning resource to enhance undergraduate medical education Western Medical Student research Forum, 2009 Carmel

#### PUBLICATIONS APR 1, 2008 TO MAR 31, 2009

1. Mickelson JJ, **MacNeily AE**, Samarasekera D, **Afshar K**: Competence in Pediatric Urology upon graduation from residency: perceptions of residents, program directors and pediatric urologists. CUA Journal Vol2 No.3 205-210 June 2008.
2. Welk BK, Rapoport D, **Afshar K**, **MacNeily AE**: Complications of the catheterizable channel following continent urinary diversion: their nature and timing. J Urology 2008 Oct;180:1856-60.
3. **MacNeily AE**: Invited Editorial on Uroflowmetry following meatoplasty: Can it replace witnessed micturition as a measure of successful outcome? J Urology 2008 June;179 2406.
4. **Afshar K**, **MacNeily AE**. Strengths and Pitfalls of Meta-Analysis Reports in Vesicoureteral Reflux Advances in Urology Vol 2008, Article ID 295492, 6 pages.
5. Mickelson JJ, **MacNeily AE**: Translational Education: Tools for implementing the CanMEDS competencies in Canadian urology residency training CUA Journal Aug 2008 Vol2 No. 2.
6. Mickelson JJ, Kaplan WE, **MacNeily AE**: Active Learning: A Resident's reflection on the impact of a student-centered curriculum. CUA Journal In Press. Accepted Nov 2008.
7. **MacNeily AE**, Jafari S, Scott H, Dalgetty A, **Afshar K**: Health Related Quality of Life in Spina Bifida: A prospective assessment before and after Lower Urinary Tract Reconstruction. J Urology In Press. Accepted Jan 2009.
8. **Afshar K**, Seth A, Jafari S, **MacNeily AE**: Publications by the American Academy of Pediatrics Section On Urology: The Quality of Research Design and Statistical Methodology. J Urology In Press. Accepted Feb 2009.
9. Hennessey K, **Afshar K**, **MacNeily AE**: The top 100 cited articles in Urology CUA Journal in press accepted Feb 2009.
10. **Afshar K**, Jafari S, Mirbagheri A, **MacNeily AE**: Development of a symptom score for dysfunctional elimination syndrome J Urology In Press accepted March 2009.

11. Cochrane DD, Beauchamp R, King C, **MacNeily AE**. Spasticity in Spina Bifida. In: Spina Bifida: Management and Outcome Eds Ozek M, Cinalli G, Maixner WJ. Milan, Verlag Springer 2008.
12. **Afshar K**, Jamieson DH, **MacNeily AE**. Study Guide to Radiologic Assessment of the adrenal gland Chapter #15, 48-51. In Clinical Pediatric Urology Eds Docimo, Canning, Khoury. Fifth Edition 2008.
13. Hagerty J, Maizels M, Kirsch A, Liu D, **Afshar K**, Bukowski T, Caione P, Homsy Y, Meyer T, Kaplan W; PIC Cystography Group. Treatment of occult reflux lowers the incidence rate of pediatric febrile urinary tract infection. Urol. 2008 Oct;180(4 Suppl):1814-8; discussion 1818. Epub 2008 Aug 21.

#### Electronic Publications:

14. Zappavigna C, Jonat L, **MacNeily AE**, **Masterson JST**: Online PBL module for UBC Medical Students: Pediatric Urinary tract infection and Vesicoureteral reflux 2007-2008 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>
15. Runkle B, **MacNeily AE**, **Masterson JST**: Online PBL module for UBC Medical Students: Ambiguous genitalia 2007-2008 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>
16. Shimizu J, **MacNeily AE**: Online PBL module for UBC Medical Students: Posterior Urethral Valves 2008-2009 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>
17. Kohli K, **MacNeily AE**: Online PBL module for UBC Medical Students: Megaureter 2008-2009 [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>
18. Fraser T, Gotto G, **Afshar K**: Online PBL module for UBC Medical Students: Enuresis 2008-2009 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>
19. Longpre M, Afshar K: Online PBL module for UBC Medical Students: Antenatal Hydronephrosis 2008-2009 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html) <<http://www.clipp2.instruct.de/player/app/homepage.html>>

20. Wong W, Marks A, **Afshar K**: Online PBL module for UBC Medical Students: Wilms' Tumor 2008-2009 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html)
21. Shimizu J, Faddego S, **Afshar K** : Online PBL module for UBC Medical Students: Foreskin Problems in Children 2008-2009 available at [www.clipp2.instruct.de/player/app/homepage.html](http://www.clipp2.instruct.de/player/app/homepage.html)

#### STUDENT, RESIDENTS, AND FELLOWS SUPERVISED

Name	Title
Dr. Victor Figueroa	Visiting Urologist from Colombia
Dr. Kiara Hennessey	Research supervisor
Dr. Andrew Marks	Research supervisor
Dr. Laura Chang-Kit	Research supervisor
14 out of province medical students on elective	
12 UBC Urology residents rotated through	
11 medical students	PBL Development Summer project (2008)
12 medical students	PBL case development, iClicker technology and surgical vignette projects (2009)
Dr. A.Marks	Resident (K.Afshar: research supervisor)
Dr. A.Seth	Resident (K.Afshar: research supervisor)
Dr. K.Hennessey	Resident (K.Afshar: research supervisor)
Dr. L.Chang-Kit	Resident (K.Afshar: research supervisor)
Dr. Michelle Longpre	Resident (K.Afshar: research supervisor)
Mr. Justin Lee	Medical Student (K.Afshar: research supervisor)
Mr. Derry Dance	Medical Student (K.Afshar: research supervisor)
Mr. Reza Hamid Zadeh	Medical Student (K.Afshar: research supervisor)
Ms. Christine Sutton	Medical Student (K.Afshar: research supervisor)



Mr. Jed Shimizu	Medical Student (K.Afshar: research supervisor)
Ms. Wendy Wong	Medical Student (K.Afshar: research supervisor)
Mr. Tyler Fraser	Medical Student (K.Afshar: research supervisor)

## SUCCESSFUL GRANT FUNDING

Project Title	PI	Team	Granting Agency	Amount
Use of cranberry products in pediatric UTI	M.L. Stothers	MacNeily A, Afshar K	Lions Gate Foundation	\$55,000
Treatment of persistent incontinence	P. Steinbok	MacNeily A	BC Medical Services	\$50,000
Uropedia-an internet based trainee resource	C. Nguan	MacNeily A	UBC Urology Education Grant	\$10,000
Continued Development of Online Teaching Resources in Urology	J.S.T.M. Masterson	Goldenberg L, Leone E, Nguan C, Afshar K, Peterson L, Hennessy	UBC Teaching and Learning Enhancement Fund	\$27,950
Review of the introduction of iClicker technology into weeks 1-5 wrap up lectures in the 2009 FERGU block	J.S.T.M. Masterson	Afshar K	SSIP Faculty of Medicine Grant	\$4,900
Lights camera surgery: Production of surgical education videos within the OR setting	G. Blair	Masterson J, Duffy D	UBC Teaching and Learning Enhancement Fund	\$14,850
CYHRNet Health Economics Workshop Travel Grant	K. Afshar	Jafari S, Duffy D	CYHRNet	\$500
Impact of surgical cancellations on families	K. Afshar	Jafari S, Duffy D	CYHRnet Seed Grant	\$4,850
Use of visual aids in the teaching of surgical skills	K. Afshar	Hamidzadeh A	UBC summer student Grant	\$3,400

## HONOURS AND AWARDS

Recipient	Name of Award	Date Received
MacNeily AE	UBC Dept of Urologic Sciences Outstanding Resident Teacher Award 2007-2008	June 2008
MacNeily AE, Afshar K	First Prize Canadian Urological Association Prize Essay contest	June 2008

MacNeily AE, Afshar K	American Academy of Pediatrics Section on Urology First Prize Clinical Research: Health Related Quality of Life in Spina Bifida: A prospective assessment before and after lower urinary tract reconstruction	Oct 2008
MacNeily AE	Dr Parminder Singh award for outstanding consultant service to BC Pediatricians	June 2008

## COMMITTEE PARTICIPATION

### Dr. MacNeily

1. MacNeily AE Physician Member-BC Children's Hospital "Circle of Care" \$10,000 Foundation donor
2. MacNeily AE Chief negotiator Pediatric Surgical CASC BC Children's Hospital
3. MacNeily AE Surgical representative - C&W Clinical Informatics Advisory Committee
4. MacNeily AE Divisional Representative - Surgical Services Advisory Committee BCCH
5. MacNeily AE Divisional Representative - Surgical Cabinet BCCH
6. MacNeily AE Expert panel member: Canadian National Pediatric Surgical wait time access target committee 2008
7. MacNeily AE Grant Reviewer: Royal College Physicians and Surgeons Med Education Research grants May 2008
8. MacNeily AE External Reviewer for Promotion and Tenure University of Alberta Department of Surgery Dec 2008
9. MacNeily AE 2007 - 2009 Section Editor (Pediatric Urology) Canadian Urological Association Journal
10. MacNeily AE 2006-2008 President Pediatric Urologists of Canada
11. MacNeily AE 2008-2010 Past-President Pediatric Urologists of Canada
12. MacNeily AE 1995-2009. Member Canadian Urological Association Residency Affairs Committee
13. 2006-2009 Member Dept of Urologic Sciences Promotion and tenure committee
14. 2006-2008 Nucleus member UBC Dept of Urologic Sciences Advisory council
15. 2006-2008 Vice Chair UBC Department of Urologic Sciences
16. 2006-Member Dept of Urologic Sciences Educational Committee
17. 2007-Member Dept of Urologic Sciences Merit & PSA Committee
18. 2009 UBC Dept of Urological Sciences representative - Toronto Urology Fair

19. Chair - UBC Dept of Urologic Sciences Residency Training Committee

20. Member UBC Dept of Surgery Residency Affairs Committee

21. Member UBC Postgraduate Executive Committee (FREC)

22. Manuscript Reviewer: Journal of Urology

### Dr. Afshar K

23. Physician Member-BC Children's Hospital "Circle of Care" \$10,000 Foundation donor UBC Committee Involvement: (role, committee name, dates)
  - Member of Research Committee, Department of Urological Sciences, UBC Sep.2006-present
  - Director Residency Research Program: Department of Urological Sciences, UBC Sep. 2006-Present
24. Hospital Committee Involvement: (role, committee name, dates)
  - Member Antimicrobial Review Committee, BC Children's Hospital, Feb 2007-Present
  - Clinical Record Committee, BC Children's Hospital Oct., 2004-Present
  - Director of Research Division of Pediatric Urology, BC Children's Hospital, July 2004-Present
25. Other Involvement
  - Secretary Treasurer Pediatric Urologists of Canada
26. Member of Cochrane Renal Group
27. Reviewer Journal of Urology:
  - Reviewer McMaster's University Online Review of Evidence (MORE)
  - Reviewer Canadian Urological Association Journal
  - Reviewer World Journal of Urology
- Dr. Masterson, JST
28. Masterson, JST Physician Member-BC Children's Hospital "Circle of Care" \$10,000 Foundation donor
29. Masterson, JST Member, Pediatric Surgical Executive Committee, BCCH
30. Masterson, JST Member, Surgical Data Management Committee BCCH

31. Masterson, JST Member, BCCH Surgical Cabinet Committee
32. Masterson, JST Alternate Member, UBC Dept Urological Sciences, UBC Under Graduate Curriculum Committee
33. Masterson JST, Surgical Services Advisory Committee, BCCH

### PROJECTS AND INITIATIVES IN PROGRESS

1. Maizels M, MacNeily AE, Afshar K: CEVL: Computer Enhanced Visual Learning. A web-based curriculum for teaching residents the components of common surgical procedures. 2007-2009 UBC ERB application accepted May 2008.
2. MacNeily AE, Hennessey KK, Williams A, Afshar K: Duplicate publications in Urology. A bibliometrics project examining the rates of duplicate and near-duplicate publications in the peer-reviewed urological literature 2009-2010.
3. Ngan C, Izawa J, MacNeily AE: Uropedia: Development of an internet based Urology-trainee specific resource to improve trainee knowledge, confidence and performance 2006-ongoing.
4. Marks A, Afshar K, MacNeily AE: Cochrane Meta analysis of literature pertaining to NSAID and non-opioid pain management for renal colic 2004-2009.
5. Stothers I, Afshar K, MacNeily AE: Double-Blind, randomized placebo-controlled trial of cranberry products in the prevention of recurrent urinary tract infections in children 2004-2009.
6. Steinbok P, Gartner H, MacNeily AE, and working group: Clinical trial on dysfunctional voiding, and tethered cord, in the presence of a normally located conus medullaris. Urological consultant for multicenter randomized trial involving neurosurgical treatment for refractory Pediatric dysfunctional voiding and incontinence. 2004 - ongoing.
7. MacNeily AE, Webber E, Alden L, Afshar: The Surgical Personality: Is it unique?: Applying standard psychological testing to faculty surgeons, surgical residents and non surgeons. (2006-2009) CUA abstract submitted Jan 2009.
8. Afshar K, Barber H, MacNeily AE: Biofeedback in Treatment of Pediatric Dysfunctional Voiding: A Randomized Clinical Trial 2007-2009.
9. Afshar K, Dance D: Geographical Distribution of Hypospadias in British Columbia: Study design, Collection and analysis of the Data (data analysis).
10. K.Afshar, R Hamidzadeh: Effectiveness of Visual Aids in teaching Surgical Skills: A randomized controlled Trial.
11. W.Gourlay, Afshar K, G.Gotto and C. Ngan AE MacNeily: Effect of Surgeons fatigue on Transplant outcome.
12. Masterson, JST Ngan, C Development and Expansion Of Images Resource Library, Dept of Urological Sciences.
13. Masterson, Peterson, L Ongoing Development and Curriculum Integration of Online PBL Urology Cases.
14. Masterson JST, Blair, G Development of Online Surgical and Procedural Video Vignettes for Undergrad Medical Students.
15. Masterson, JST, White, Colin Integration of iClicker (Electronic Audience Voting) into the UBC Undergrad PBL lecture series.



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UNIVERSITY OF BRITISH COLUMBIA**

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