# ANNUAL ACHIEVEMENTS REPORT





OFFICE OF PEDIATRIC SURGICAL EVALUATION AND INNOVATION





# TABLE OF CONTENTS

EI

Welcome Message	3
Miracle Weekend in December	4
Celebrating Leadership	5
Breakdown of Donations	6
Department of Pediatric Dentistry	7-19
Department of Pediatric Ophthalmology	20-67
Department of Pediatric Orthopaedic Surgery	68-130
Department of Pediatric Otolaryngology	131-149
Department of Pediatric Plastic Surgery	150-167
Department of Pediatric Surgery	168-197
Department of Pediatric Urology	198-212
Department of Pediatric Neurosurgery	213-234

## WELCOME MESSAGE

#### **Dear Colleagues,**

We are pleased to share with you the OPSEI Annual Achievements Report for the years 2018-2019 and 2019-2020. In this report, you will see the contributions of departmental members organized by each division and department. This report highlights teaching, research, leadership, patient advocacy, and honours and awards of our faculty. As you will read, the areas of clinical research are quite diverse in Pediatric Surgery but they share one common feature – to improve and advance the care of children in need of highquality, timely access to surgery. Please join us in celebrating the contributions of our caring and committed team of Pediatric Surgeons at BC Children's Hospital.

We would also like to graciously acknowledge the generous support of our donors to BC Children's Hospital Foundation. With your support, we are able to continue research, train a pediatric surgical workforce, and advocate for the surgical care of children in BC, Canada, and globally.

Yours sincerely,

Damian J. Duffy Executive Director, OPSEI BC Children's Hospital University of British Columbia





Dr. Erik Skarsgard

Chief of Pediatric Surgery

University of British Columbia

BC Children's Hospital



## MIRACLE WEEKEND IN DECEMBER



We held the "Miracle Weekend in December" with Dr. Jugpal Arneja, Associate Chief of Pediatric Surgery who presented the team donation from the Departments of Pediatric Anesthesia, Pediatric Dentistry, and Pediatric Surgery. Warmest thanks and gratitude to our Surgical Team for your unfailing support and generosity to BC Children's Hospital Foundation. This cheque represents our largest team donation ever from the Surgical Team for a grand total of \$5,112,943 over 15 years.

### **CELEBRATING LEADERSHIP - DEPARTMENT OF PEDIATRIC SURGERY, BC CHILDREN'S HOSPITAL**

Dr. Kourosh Afshar, President, Canadian Academy of Urological Surgeons

Dr. Jugpal Arneja, Vice Chair, American Society of Pediatric Plastic Surgery

Dr. Jugpal Arneja, Vice Chair, American Academy of Pediatrics Section of Plastic Surgery

Dr. Geoffrey Blair, Director, Undergraduate Surgical Education, UBC

Dr. Sonia Butterworth, Assistant Dean, Postgraduate Medical Education, UBC

- Dr. Sonia Butterworth, Chair, Publications Committee, Canadian Association of Pediatric Surgeons
- Dr. Anthony Cooper, Chair, Canadian Pediatric Orthopedic Trauma Course

Mr. Damian Duffy, Cabinet Member, United Way of the Lower Mainland

Mr. Damian Duffy, Board Member, Health for Humanity

Dr. Jane Gardiner, Director of Undergraduate Medical Education, Dept of Ophthalmology and Vision Science, UBC Faculty of Medicine

Dr. Jane Gardiner, Examiner, Royal College of Physicians and Surgeons of Canada

Dr. Jane Gardiner, Member, Executive Committee, Royal College of Physicians and Surgeons of Canada

Dr. Debbie Giaschi, Coordinator, NSERC Undergraduate Student Research Awards, UBC Faculty of Medicine

Dr. Frederick Kozak, Past President, Canadian Society of Otolaryngology-Head and Neck Surgery Dr. Andrew MacNeily, President, Canadian Urological Association

Dr. Andrew MacNeily, Chair, AFC Diploma Committee for Pediatric Urology, Royal College of Physicians and Surgeons of Canada

Dr. Andrew MacNeily, Vice Chair, Department of Urologic Sciences, UBC

Dr. Patrick McDonald, President, Canadian Neurosurgical Society

Dr. Patrick McDonald, Chair- Ethics Committee, Royal College of Physicians and Surgeons of Canada

Dr. Conor Mulholland, Chair, Professional Standards, the Canadian Orthoptic Council

Dr. Kishore Mulpuri, President, the Canadian Orthopaedic Association

Dr. Kishore Mulpuri, Head, Department of Orthopedics, University of British Columbia

Dr. Ash Singhal, Chair - Surgical Foundations Examination, Royal College of Physicians and Surgeons

Dr. Ash Singhal, Chair, (Canada) Communications Committee, International Society of Pediatric Neurosurgery

Dr. Erik Skarsgard, Past President, Canadian Association of Pediatric Surgeons (finishing 2020) Dr. Erik Skarsgard, Chair, Advisory Board for the Institute of Human Development, Child and Youth Health, CIHR (2019)

Dr. Erik Skarsgard, Chair, Advisory Council for Pediatric Surgery (American College of Surgeons) (2018)

Dr. Erik Skarsgard, Governor of the American Pediatric Surgical Association (2018)

Dr. Paul Steinbok, Principal investigator, Multicenter Study of Calvarial Langerhans Cell Histiocytosis

Dr. Sonia Yeung, Director, Cornea Service, UBC Dept of Ophthalmology and Visual Sciences.

Dr. Sonia Yeung, Medical Director, Eyebank of BC

Dr. Sonia Yeung, Editor, Cornia Section, Canadian Journal of Ophthalmology

Dr. Vivian Yin, Vice Chair, Board of Directors SEVA 2017-2018, Acting Chair 2018-2019

Dr. Vivian Yin, Chair, Canadian Association for Public Health and Global Ophthalmology, Canadian Ophthalmology Society

Dr. Vivian Yin, Region 1 Representative, Specialty Committee in Ophthalmology, Royal College of Physician and Surgeons 2019 - present

Dr. Vivian Yin, Annual Meeting Planning Committee. Canadian Ophthalmology Society 2017present

Dr. Vivian Yin, Board of Directors, Vancouver Physician Staff Association/VMDAS 2019 - present

## **BREAKDOWN OF DONATIONS**

### **Amount Raised Per Year**



**OPSEI** Annual Report

## DIVISION OF PEDIATRIC DENTISTRY



### 2018-2020

### **PEDIATRIC DENTISTS (CORE)**



Dr. Jennifer Park Dept. Head



Dr. Washam Cheung



Dr. Joy Richman



Dr. Phoebe Tsang



Dr. Serena Kassam



Dr. Shan Sun

### 2018-2020

### **PEDIATRIC DENTISTS (CORE)**



Dr. Fran Rhee



Dr. Winnie Zhao



Dr. Randa Soussou



Dr. Kunal Chander



Dr. Amy Bellamy

### 2018-2020

### **ORAL MAXILLOFACIAL SURGEONS**



Dr. Raymon Grewal



Dr. Ben Kang



Dr. Jason Choi



Dr. Graham Grabowski

## Dr. Chris Olynik

### CONSULTANTS

- Dr. Mark Casafrancisco (pediatric dentist)
- Dr. Peter Chan (pediatric dentist)
- Dr. Elsa Hui-Derksen (pediatric dentist)
- Dr. Jennifer Yee (pediatric dentist)
- Dr. Jonathan Hung (pediatric dentist)
- Dr. Anu Korada (pediatric dentist)
- Dr. Angie Loo (orthodontist)
- Dr. Travis Gibson (orthodontist)
- Dr. Paul Pocock (orthodontist)
- Dr. Paul Helpard (orthodontist)
- Dr. Dorothy Sonya (orthodontist)
- Dr. Nathan Cain (prosthodontist)
- Dr. Priscilla Walsh (periodontist)
- Dr. Ahmed Hieawy (endodontist)
- Dr. David MacDonald (oral radiologist)
- Dr. Rosamund Harrison (scientific & research)
- Dr. Kavita Mathu-Muju (scientific & research)

### **STAFF MEMBERS**

### 2018-2020

#### **CERTIFIED DENTAL ASSISTANTS**

Pat Coons (team lead)

Sherry Dexter

Cindy Singh

Benny Orilido-Acosta

Alice Mak

Pam Johal

Christy Lam

#### CLERICAL

Ella Wierzbicki

Gina Erwin

Ronnie Feng

#### **PAST/CURRENT TRAINEES IN PEDIATRIC DENTISTRY**

Class of 2018: Don He, Charis Luk, Randa Soussou, Al Abushanan

Class of 2019: Bryan Wong, Cara Yu, Mina Al-mosawi

Class of 2020: Carol Lui, Pauline Lee, Jassica Sarai, Zachary Wong

Class of 2021: Jessica Tam, Zahra Samji, Erika Ridgway, Jaspal Rajput (DSATP)

Class of 2022: Mandeep Gill, Michelle Li

### RECACHINES EMENTS 2018-2020

DR. JENNIFER PARK	New Chief of Dentistry, June 2019
	Interim director of graduate program in pediatric dentistry 2018, Director of the grad program in 2019
DR. JOY RICHMAN	Fellow, Royal College of Dentists Canada, 2019
	Fellow, Canadian Academy of Health Sciences, 2020
	CADR-ACFD National Dental Research Award for 2020
DR. WASHAM CHEUNG	Interim Chief of Dentistry, Sept 2018- 2019
DR. WASHAM CHEUNG	Promotion to Clinical Professor, UBC Dentistry

Graduate Student	Thesis Title for MSc in Craniofacial Science	Year	Supervisor(s) & Committee Members
Don He	Craniofacial morphological changes in neonates using continuous and bilevel positive airway pressure	2018	Ben Pliska (supervisor) Committee members: Fernanda Almeida, N. Chadha
Charis Luk	Effect of preoperative intervention in reducing the parent and child's anxiety for oral sedation	2018	Kavita Mathu-Muju (supervisor) Committee members: Rosamund Harrison, Shan Sun
Randa Soussou	Waiting-room based dental health promotion for caregivevers at UBC	2018	Jolanta Aleksejuniene Committee members: Rosamund Harrison, Kavita Mathu-Muju
Cara Yu	Positive secular changes in dental maturation over a 30-year period in British Columbian children	2019	Joy Richman Committee members: Hugo Cardoso, David Kennedy
Bryan Wong	Evaluating the success rate of Biodentin as a pulpotomy medicament	2019	Kavita Mathu-Muju Committee members: Jeffery Coil, Mark Casafrancisco
Mina Al-Mosawi	Authoritative parenting model for improving oral self-care skills in orthodontic patients	2019	Jolanta Aleksejuniene Committee members: David Kennedy, Leeann Donnelly
Carol Lui	Dental and craniofacial findings in prematurely born children with non-invasive ventilation: a pilot study	2020	Ben Pliska Committee members: Neil Chadha, Fernanda Almedia
Zachary Wong	Three-dimensional facial morphology and the use of non- invasive ventilation in infants	2020	Ben Pliska Committee members: Neil Chadha, Siddarth Vora
Jessica Sarai	Space maintenance treatment planning for pediatric patients	2020	Jolanta Aleksejuniene Committee members: David Kennedy, Shan Sun
Pauline Lee	A retrospective study of the population served by the Children's Dental Program at the UBC Faculty of Dentistry	2020	Jolanta Aleksejuniene Committee members: Leeann Donnelly, Anu Korada
Kywana Bonaparte	Dishevelled function during chondrocyte differentiation	Since 2019	Joy Richman Committee members: Mark Cembrowski, Tim O'Conner

### 2018-2020

Graduate Student	Thesis Title for PhD	Year	Supervisor(s) & Committee Members
Sarah Gignac	The role of non-canonical WNT signalling in limb development	2019	Joy Richman Committee members: Michael Underhill, Janel Kopp, Tim O'Conner
Adrian Danescu	Organized cell movement is a major mechanism underlying facial morphogenesis	2019	Joy Richman Committee members: Calvin Roskelly, Pamela Hoodless, Clive Roberts
Joaquin Henriquez	Timed tooth resorption during life-long tooth replacement in the gecko	Since 2018	Joy Richman Committee members: Siddarth Vora, Tim O'Conner, Dieter Bromme
Shruti Tophkane	Analysis of Frizzled 2 variants that cause Robinow Syndrome	Since 2019	Joy Richman Committee members: Cathy Van Raamsdonk, Chris Loewen, Siddarth Vora
Isra Ibrahim	Molecular mechanisms of lip fusion	Since 2020	Joy Richman Committee members: Mary MacDougall, Siddarth Vora, Karla Williams

#### Other Students Supervised

Supervisor	Student Name/Type
Joy Richman	Rodolfo Martin del Campo, PDF since 2020
Joy Richman	Kirstin Brink, Killam and Banting PDF from 2015-2019

### SCHOLARLY & PROFESSIONAL 2018-2020 ACTIVITIES CON'T

#### PRESENTATIONS

Richman, J.M., Vora, S. and Diewert, V.M.. Diving into the Marianas Trench of human craniofacial evelopment: Using 3D imaging to explore growth of the head in the middle trimester. Presented at CEITEC, Brno, Czech Republic. February 20, 2018.

Richman, J.M.\*, Grieco, T.M. and Brink, K. Rebooting the Zahnreihen: Analysis of the Jaw-wide Patterning cues in the Adult Gecko Dentition. American Association of Anatomists meeting San Diego, April 2018.

Richman, J.M., Danescu, A., Rens, E., Fu, K., Woo, J., Keshet, L. Cellular and Physiological Sciences Department Seminar, "Working at the interface of biology and mathematical modeling to understand cell behaviour in the face". October 18, 2018.

Dr. Randa Soussou - CAPD Annual Meeting – "Waiting room time: An opportunity for caregiver oral health education" (2018).

Dr. WS. Cheung - Keynote speaker for the Annual Pediatric Endowed Lecture at the University of Alberta – "Oral pathology in pediatric patients" (2018).

Dr. Graham Grabowski – Orthognathic Surgery & Alveolar Cleft Bone Grafting lectures to UBC grad orthodontic students (2018, 2020).

Dr. Graham Grabowski – Pre-prosthetic Surgery lecture to UBC undergraduate dentistry students (2018, 2019).

Dr. Graham Grabowksi – Pacific Dental Conference – "Cannabis and Dentistry" (2018).

Dr. Jennifer Park – Behavior Guidance seminar series to UBC grad pediatric dentistry students (2018).

Dr. Jennifer Park – Pediatric Medicine and Hospital Dentistry seminar series to UBC grad pediatric dentistry students (2019).

Dr. Randa Soussou – Oral presentation: BCCH Dept. of Hematology/Oncology - "Dental Considerations for the Oncology patient" (2019).

Richman, J.M., Danescu, A., Rens, E., Woo, J., Keshet, L. Pacific Institute of Mathematical Sciences Seminar series. "Organized cell movement is a major mechanism underlying facial morphogenesis". February 6, 2019.

Richman, J.M., Gignac, S.J. and Verheyen, E. Meeting of the Mexican Division of the IADR, "Using chickens and flies to understand human gene mutations". May 27-29, 2019. Cancun Mexico

### SCHOLARLY & PROFESSIONAL ACTIVITIES CON'T

Richman, J.M., Gignac, S.J. and Verheyen, E. The wing(less) project – analysis of humanized chickens and flies expressing syndromic gene variants Atlantic Regional Developmental Biology meeting, Halifax, June 7, 2019.

Richman, J.M., Brink, K., Henriquez, J. and Grieco, T.M. "Natural Ankylosis is Compatible with Polyphyodonty in Reptiles". Meeting of the International Association of Dental Research, June 19, Vancouver. Symposium organizer.

Richman, J.M., Brink, K., Henriquez, J. and Grieco, T.M. "Probing the secrets of polyphyodonty in adult geckos". 13th Tooth Morphogenesis and Development meeting, September 1-6, 2019 Oxford.

Dr. Graham Grabowski; Dr. Angie Loo – Pacific Dental Conference – "A Cleft Patient's Journey" (2020).

Dr. Serena Kassam – Behavior Guidance seminar series to UBC grad pediatric dentistry students (2020).

Dr. Serena Kassam – Pediatric Medicine and Hospital Dentistry seminar series to UBC grad pediatric dentistry students (2020).

Dr. Serena Kassam – New York University College of Dentistry Bi-monthly Cleft and Craniofacial lecture series to pediatric dentistry residents (2020).

Dr. Serena Kassam – 3rd International Comprehensive Cleft Care Workshop: Surgical, Dental, Speech, Pathology, Psychosocial, Global Smile Foundation - "Pediatric Dental Care in the Management of Patients with Cleft" & "NasoAlveolar (NAM) 8 year follow up in an Outreach Setting" (2020).

Dr. Serena Kassam – CSDH – Cleft Lip and Palate Management webinar (2020).

Dr. Serena Kassam – ACPA – World Cleft Coalition: Creating International Treatment Guidelines webinar (2020).

Dr. Serena Kassam – Oral presentation - American Academy of Developmental Medicine & Dentistry (AADMD) 2020 Virtual Conference *Implementation of a Didactic course and Clinic for Cleft and Craniofacial Conditions in NYUCD's Advanced Education Program in Pediatric Dentistry*, Bieke L. Kreps

DDS, Serena Kassam DMD, Linda Rosenberg DDS, Amr M Moursi, DDS, PhD, June 11, 2020.

Dr. Serena Kassam - International Association of Paediatric Dentistry 2020 Virtual Meeting, *Implementing a Course and Clinic for Cleft and Craniofacial Conditions in NYU College of Dentistry's Advanced Education Program in Pediatric Dentistry*, Bieke L. Kreps DDS, Serena Kassam DMD, Linda Rosenberg DDS, Amr M Moursi, DDS, PhD. Sept 13-17, 2020 (Submitted).

### SCHOLARLY & PROFESSIONAL 2018-2020 ACTIVITIES CON'T

Richman, J.M. Gignac, S.G., Verheyen, E. Triangulation of data from two model organisms explains the impact of human WNT pathway mutations on development". Society for Craniofacial Genetics & Developmental Biology, 43rd Annual Meeting, October 19-20th, 2020. Virtual Meeting.

#### FUNDING

GRANTING AGENCY	TITLE	\$ PER YEAR	YEAR	PRINCIPLE INVESTIGATOR & CO- INVESTIGATORS
National Institute of Health, NIDCR R21 Exploratory Grant Program	Development of the leopard gecko as a model to study in vivo tooth replacement	\$375,500/yr for 2 years	2017-2019 2 yr no cost extension to 2021	Joy Richman
Canadian Institutes of Health Research (CIHR)	Discovery of novel WNT signaling mechanisms from the study of human genetic disease in two animal models	\$163,900/yr for 5 years	2019-2024	<b>Joy Richman</b> Co I: Esther Verheyen
UBC Research Excellence Cluster	Harnessing the Social Exposome to Reduce Inequalities in Child Health and Devlopment in Canada	\$200,000 over 2 years	2020-2022	<b>Michael Kobor</b> Co-ls: Dominique Weis Ben Pliska Kiran Soma Tao Huan Joy Richman

### **COMMITTEE PARTICIPATION**



DDINCIDIE

<b>Name</b> Dr. Serena Kassam	<b>Committee</b> ACPA Pediatric Dentistry Discipline Forum, Co-chair (2020)
Dr. Phoebe Tsang	BCDA "Save a Smile" Committee (2016-present)
Dr. Shan Sun	National Dental Examination Board - Written and OSCE Questionnaire Development Committee (2018-2020)
Dr. Joy Richman	International Association for Dental Research Board, Member (2017-2020) CIHR Developmental Biology, Panel Member (2020-2022) Associate Editor for Journal of Dental Research (Biological and
	Pediatric Dentistry papers) (2010-present)

### **PUBLICATION RECORDS**

### 2018-2019

Soussou R, Cheung WS, Campbell, KM. Congenital Insensitivity to Pain with Anhidrosis: A Case with Self-Inflicted Oral Ulcerations. J Dent Child 2019; 86(2):109-112.

Luk CYK, Fu E, Mathu-Muju KR. The effect of an audiovisual preoperative intervention in reducing parental anxiety prior to a child's sedation appointment: A pilot study. Pediatr Dent 2019; 41(2):112-118.

Wong, BJW, Cheung WS, Campbell, KM. Congenital epulides --- Spontaneous regression. J Pediatr 2019; 205:287-287.e1.

Wong, BJW, Cheung WS, Campbell, KM. Aphthous stomatitis major in a 4-month-old infant. J Emerg Med 2018; 55(6):e157-e158.

Serena N. Kassam DMD, Jamie Perry PhD, Gareth Davies BA, Nan Hudson, Erin Steiber, Ruben Ayala MD, Usama S Hamdan MD, FICS. "World Cleft Coalition International Treatment Standards." Cleft Palate Craniofacial Journal. 2020 Oct; 57 (10): 1171-1181 Epub 2020 June 23.

Grieco, T. and Richman, J.M. (2018). Coordination of bilateral tooth replacement in the juvenile gecko is continuous with in ovo patterning. Evolution and Development. 20(2):51-64.

Richman, J. M., 2019. Shedding new light on the mysteries of tooth eruption. Proc Natl Acad Sci U S A. 116, 353-355. Commentary

Richman, J. M., 2019. Shedding new light on the mysteries of tooth eruption. Proc Natl Acad Sci U S A. 116, 353-355. Commentary

Fons JM, Gaete M, Zahradnicek O, Landova M, Bandali H, Khannoon ER, Richman JM, Buchtova M, Tucker AS, 2019. Getting out of an egg: Merging of tooth germs to create an egg tooth in the snake. Dev. Dyn. DOI:10.1002/dvdy.120

Brink, K. S., Chuong, C. M., Wu, P. and Richman, J. (2020). Effects of Premature Tooth Extraction on Tooth Replacement Rates in Iguana iguana. Integrative and Comparative Biology 60, E24-E24.

Danescu, A., Rens, L., Rekhi, J., Woo, J., Akazawa, T., Fu, K., Edelstein-Keshet, L. and Richman, J. M. (2020). Symmetry and coordination of cell movements in neural crest-derived facial mesenchyme. Development Under revision.

Brink, K. S., Grieco, T. M., Henriquez, J., Martin del Campo, J. R., Fu, K. and Richman, J. M. (2020). Tooth removal in the leopard gecko and the de novo formation of replacement teeth. Frontiers in Physiology Under revision.

Dr. Graham Grabowski – Publication of Textbook Chapters: Aesthetic Orthognathic Surgery and Rhinoplasty - May 21, 2019.

-Chapter 1 Introduction to Aesthetic Orthognathic Surgery and Rhinoplasty -Chapter 2 Assessment and Evaluation in the Aesthetic Orthognathic Patient

## DIVISION OF PEDIATRIC OPHTHALMOLOGY



### FACULTY MEMBERS ON-SITE

### 2018-2019



Dr. Maryam Aroichane



Dr. Conor Mulholland



Dr. Jane Gardiner -Interim Department Head



Dr. Christopher Lyons

### FACULTY MEMBERS OFF-SITE

- Dr. David Albiani
- Dr Roy Cline
- Dr. T. Alan Demco
- Dr. Peter Dolman (Oculoplastics)
- Dr Ross Kennedy
- Dr. Ashley Ko

- Dr. Patrick Ma (Retina)
- Dr. Andrew Merkur (Retina)
- Dr. Katherine Paton (Ocular Oncology)
- Dr. Megan Rees
- Dr. David Rossman (Oculoplastics)
- Dr. Vivian Yin

### **RESEARCH DEPARTMENT**

#### • Dr. Deborah Giaschi

### **STAFF MEMBERS**

#### **Orthoptic Staff**

- Christy Giligson
- Grace Harradine
- Andrea Quan
- Vaishali Mehta
- Debbie Zylich

#### **Visual Impairment Program**

• Dr. Carey Matsuba

#### **Administrative Staff**

- Joan Baldos
- Karen Chen
- Chloe Gregg
- Brenda Jew
- Mitra Mayer
- Sabrina Ramlogan
- Natalie Wong

### 2018-2019

### 2018-2019

### Electrophysiology Staff

• Linn Moore

### HIGHLIGHTS & ACHIEVEMENTS 2018-2019

We were happy to welcome Dr Conor Mulholland to our department in early 2019. He has joined Dr Maryam Aroichane, Dr Jane Gardiner and Dr Christopher Lyons with an onsite presence in BC Children's Outpatient Ophthalmology Clinic. We continue to be the second busiest clinic in the hospital, seeing approximately 15,000 patients visits in 2018/19 and 16,500 in 2019/20. We offer comprehensive pediatric ophthalmology care with our team of orthoptists, electrophysiology and low vision staff. In 2019 we expanded the testing we can offer onsite. With the generous support of the BC Children's Hospital Foundation, we acquired an Ocular Coherence Tomography machine. This provides vital testing to assist in the management of patients with optic nerve and retinal disease.

We continue to contribute to UBC's teaching mandate on all levels. We have an Orthoptics Training Program - ones of only 3 in the country. Two orthoptists graduated from the 2 year program in June 2019 and another student began in July 2019. We participate actively in undergraduate teaching - ranging from teaching ophthalmology clinical skills to first year medical students, to teaching 3rd year clinical clerks and 4th year elective students. Dr Jane Gardiner continues in her role as UBC Department of Ophthalmology and Vision Science Undergraduate Director and she also works on the Faculty of Medicine Undergraduate Executive Committee. We always have an ophthalmology resident rotating through our department. In addition, there is regular interest from the pediatric residents for electives in our department - a relationship we are happy to support and foster. We continue to train two fellows in Pediatric Ophthalmology. These fellows are supported by two endowments. Our first world fellow is supported by Dr Andrew McCormick endowment and our developing world fellow is supported by the Dr John Pratt Johnson endowment. Both endowments are augmented by the generous support from the BCCH foundation.

Dr Debbie Giaschi supports graduate students in her lab, with a focus on human motion perception and amblyopia. Dr Giaschi was acknowledged by the University for her excellence in teaching with the 2018 UBC Killam Teaching Prize.

Many members of our department are involved in further teaching through continuing medical education programs. Most notably, our department plans and delivers the Biennial Pediatric Ophthalmology and Strabismus meeting. Under the guidance of Dr Christopher Lyons, in September 2019, we had a very successful meeting with local, national and international speakers and attendees. Many of our faculty are involved in other local, national and international teaching.

Over the years we have continued to build up our capacity to provide services to areas of British Columbia which are underserved by Pediatric Ophthalmology; Dr Ko has provided regular outreach services in Fort St John, Dr Gardiner and Dr Aroichane visit Prince George five times a year and Dr Lyons has continued to travel to Nelson and Bella Coola. Dr Gardiner also works in Whitehorse two weeks a year. Our department continues their work at the Downtown Eastside Eye Clinic, collaborating with the pediatricians in the RICHER Program. We are able to provide excellent care to some of Vancouver's most marginalized children. Several members of our department volunteer their skills in developing countries teaching and surgical programs.

### HIGHLIGHTS & ACHIEVEMENTS 2018-2019

Our staff are actively involved in clinical research and publishing. In 2018, Dr Christopher Lyons was recognized for his ongoing contributions with the UBC Department of Ophthalmology and Vision Science Clinical Research award. Dr Lyons is also in the process of editing the 6th edition of the well-known Pediatric ophthalmology text, Taylor and Hoyt's Pediatric Ophthalmology and Strabismus. Dr Jane Gardiner had had the privilege of assisting in the development of national, evidence based Guidelines for Pediatric Eye Exams 2019), age 0-5 and for Management of Uveitis in Juvenile Idiopathic Arthritis. (2020).

We look forward to the coming years, with expansion of what we can offer in our department, with the hiring of new staff, acquisition of new equipment and continued active involvement in training programs.

### **OUTREACH**

Ophthalmology Department members continue to participate in regular outreach clinics in remote areas of British Columbia. Drs. Aroichane and Gardiner provide regular clinics to Prince George, where they are accompanied by an orthoptist. Dr. Ashley Ko goes to the UBC Resident clinic in Fort St John where she also does surgery. Dr. Lyons travels to provide clinics in Bella Coola and Nelson, where he also does surgery and is accompanied by a Fellow.

### 2018-2019

#### **Medical Student Teaching**

Dr. Jane Gardiner is Director of the Undergraduate Training Program for the UBC Department of Ophthalmology and Visual Sciences. BC Children's Department of Ophthalmology is regularly involved in teaching 3rd year clinical clerkship UBC medical students. As part of the clerkship, medical students rotate through ophthalmology for one week. During that week, they spend one half to one day in pediatric ophthalmology. We also teach 4th year elective students. All our staff, both onsite and in the community, regularly work as preceptors to the UBC medical students.

#### Residents

Residents in ophthalmology rotate through our department on a regular basis. The Ophthalmology residency program admits 3 residents per year. The residents spend 8 weeks in their 3rd year and another 8 weeks in their 4th year, in our department. The first rotation is slanted towards clinicbased learning wheras the second has a heavier surgical emphasis. They gain exposure to the world of pediatric ophthalmology and become proficient in the diagnosis and management of common pediatric ophthalmology problems, both from a medical and surgical standpoint.

Residents on the neuro-ophthalmology rotation and residents from pediatric neurology also attend Dr. Maryan Aroichane's clinic.

### 2018-2019

#### **Fellowship Training Program**

Under the leadership of Dr. Christopher Lyons, the BC Children's Department of Ophthalmology offers two, one-year fellowship positions. The Fellowship experience is inclined towards clinic-based decisionmaking, since each patient seen by the Fellow is subsequently reviewed by Staff. Over the course of their year in Vancouver, each Fellow could expect to assess at least 2500 children with pediatric ophthalmology or strabismus problems. The fellows also gain ample surgical exposure at BCCH. The fellows are actively involved in teaching both within our department and to other residents at BC Children's - most notably emergency and pediatric residents. The fellows are involved in research and outreach clinics. The program has been well reviewed by current and past fellows.

#### FELLOWS SUPERVISED

#### Pediatric Ophthalmology

Sharon Armarnik Stephen Farell Manisha Shrestha Carolina Torres

#### **Neuro Ophthalmology** Rana Al-Senawa Magdalena Wirth

Ophthalmology Research

#### Arijit Chakraborty

Xiu Ling Tan

#### **Oculoplastics**

Tsong Qiang Kwong Manar Alwohaib Namrate Adulkar Nik Koutromani Qiang Kwong

#### Retina

James Luz Aaron Joe Khoi Tran Gregory Stein Nakhoul Nakhoul Daniel Cherfan

### 2018-2019

#### RESIDENTS SUPERVISED

- Kailun Jiang Tom Liu Gelareh Noureddin Salina Teja Kathryn Clapson Gavin Docherty Myra Butler Mitchell Browne
- Rosanna Martens Colten Wendel Geoffrey law Wendy Ming Grace Qiao Henry Chen Lauren Sawatzky Carol Tadrous

#### STUDENTS SUPERVISED

#### **Research Students** Kimberly Meier (PhD student)

#### **Undergraduate Research Students**

Laveniya Kugathasan Kevin Chang Yousef Shahin Farnaz Javadian Ingrid Yuen

#### **Orthoptics Students**

Alecia Lukash Belva See Lauren Bland

Name	Lectures/Presentations
Dr Dolman	Asia Pacific Assocn Ophthalmol, Internatl Convenor, Session Chair, Hong Kong CHINA Apr 2018
	Saudi Ophthalmology 2018, Invited Speaker, Riyadh, SAUDI ARABIA Apr 2018
	Chilean Society of Oculoplastics Surgeons, Santiago, CHILE May 2018
	Orbit Society, Participating speaker, West Virginia, USA, May 2018
	British Oculoplastics Society Keynote invited speaker, Dublin, IRELAND May 2018
	Cambridge University Ophthalmic Society, Invited speaker, Cambridge ENGLAND Jul 2018
	Nepalese Society of Oculoplastics, Invited speaker, Kathmandu, NEPAL Oct 2018
	Tongren Hospital Invited speaker, Beijing, CHINA Nov 2018
	Xi'an Ophthalmic Invited speaker, Xi-an, CHINA, Nov 2018
	Philippine Academy of Ophthalmology, Manila, PHILIPPINES Dec 2018
	International Thyroid Eye Disease international symposium, invited speaker, Singapore Hong Leong Scholarship SINGAPORE, Feb 2019
	Asia Pacific Academy of Ophthalmology International convenor for oculoplastics, Bangkok, THAILAND Mar 2019
Dr Deborah Giaschi	Keynote speaker: Patching-resistant deficits in amblyopia. Clinical and Translational Forum for Visual Development and Therapy, Wenzhou, China
Dr. Jane Gardiner	UBC Sponsored: BCCH, SCN Clinical Assistant Training (ROP) November 29, 2018
	BCCH, Special Care Nursery (ROP) March 2018

Name	Lectures/Presentations
Dr C.J Lyons	UBC Pediatrics Grand Rounds, BC Children's Hospital, October 2018
	Sunny Hill Hospital Grand Rounds, November 2018
	Nelson BC: Kootenay Lake Hospital Grand Rounds: Strabismus for family physicians. September 2018
	Invited Lecturer, Saudi Ophthalmology society/Red Sea ophthalmology symposium. Jan. 2018
	Invited Lecturer. Auckland University Department of Ophthalmology March 2018
	Invited Lecturer, Melbourne Royal Eye and Ear Hospital, April 2018
	Invited Lecturer, Grand Rounds Stanford University, May 2018
	Invited Lecturer, UCLA Jules Stein Institute, June 2018
	Invited Lecturer, King Saud University Pediatric Ophthalmology Symposium November 2018
	Invited Lecturer, Moorfields Eye Hospital, London England July 2018
Dr. Patrick Ma	Allergan Meeting – DME case studies - Winnipeg, MB May 24, 2018 Allergan Meeting – DME case studies-Toronto, ON Apr 21, 2018
Dr. Conor Mulholland	UBC Department of Ophthalmology Academic Half Day Feb 2019 Vertical Strabismuc and Pattern Strabismus
Dr. Megan Rees	2018 – Speaker at BC Rural Health Conference in Nanaimo "What Not to Miss in Pediatric Ophthalmology "2018- Speaker at 64th Annual St. Paul's Hospital CME Conference for Primary Care Physicians " What To Do When You Think A Child Has Strabismus"

#### Lectures/Presentations Name **Dr Vivian Yin** 2nd Annual Meeting, North American Society of Academic Orbital Surgeons. April 4-9, 2019, Orlando, FL. a. Panelist, Advances in Targeted Therapy b. Mutational Landscape of Conjunctival Melanoma The 34th Asia-Pacific Academy of Ophthalmology Congress, Bangkok, Thailand, March 6-9, 2019 c. Recent advances in targeted therapy for periocular malignancies d. Lentigo malign with spread to conjunctival MIS. Evidence-based management of lacrimal gland tumors. CyberSight, Orbis International, New York. Feb 1, 2019. Combined reconstruction of face and lid: An oculoplastic surgeon's perspective. 5th Biennial Orbital Oncology and Oculofacial Plastic Surgery Symposium. UT MD Anderson Cancer Center, Houston, TX. Jan 25-26. 2019. Course Faculty and Moderator. Contemporary management of complex skin cancers. Memorial Sloan Kettering Cancer Center,

New York, NY. Nov 2-3, 2018. a. Periocular malignancies: special considerations.

b. Techniques for eyelid reconstructions

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
NSERC	Brain Mechanisms underlying human motion perception	С	\$39 000	2017- 2022	Giaschi	

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
AGENCY BC Children's Hospital Foundation (Whitearn Foundation)	Amblyopia treatment using iPads	С	\$5,000	2017- 2018	Giaschi	
National Eye Institute R01	Accommodation and defocus in the infant visual system	C	\$368,596	2017- 2022	T.R. Candy	A. Chen, A. Bradley, D. Lyon, K. Huang, L. Wilcox, L. Cormack, D. Giaschi
BCCHRI	Visuomotor coordination in amblyopia	NC	\$15,000	2018- 2019	Giaschi	
National Eye Institute R01	Intravitreous Anti-VEGF Treatment for Prevention of Vision Threatening Diabetic Retinopathy in Eyes at High Risk	NC	\$5,000	2016- 2021	E. Navajas	P. Ma D. Maberley D. Albiani A. Kiker A. Merkur

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
Gilead Sciences	A Phase 2, Randomized, Placebo- Controlled Trial Evaluating the Efficacy and Safety of Filgotinib in Subjects withActive Non- Infectious Uveitis	NC	\$75,000	2017- 2019	P. Ma	D. Maberley Z. Mammo
BCCHRI	A Phase III Multicenter, Randomized, Double-masked, Active comparato Controlled study t evaluate the efficacy and safety of Fabricimab in patients with Neovascular Age- related Macular Degeneration (Tenaya)	0	\$173,451			
Hoffmann-La Roche Ltd. (Canada)	GR40398 "A phase III, multicenter, randomized, double-masked, active comparator controlled study to evaluate the efficacy and safety of RO6867461 in patients with Diabetic Macular Edema"	 D				

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
IVERIC bio, Inc.	A Phase 3 multicenter, Randomized, Double-masked, Shamcontrolled clinical trial to assess the safety and efficacy of Intravitreal administration of Zimura (complement C5 inhibitor) in patients with geographic atrophy secondary to dry age-related macular degeneration	NC	\$106,289			

### **COMMITTEE PARTICIPATION**

Name	Committee
Dr. Peter Dolman	VGH Advisory Committee
	UBC Dept of Ophthalmology Advisory Committee
	UBC Residency Training Committee
	ECC OR Committee
Dr. Jane Gardiner	BC Society of Eye Physicians and Surgeons, Economics Committee 2020
	UBC Faculty of Medicine, Undergraduate Medical Executive Committee, June 2018- present
	BCCH Department of Ophthalmology, Interim Head, July 2016-Present
	UBC Opthalmology and Vision Science, Executive Committee 2016-Present
	UBC Ophthalmology and Vision Science, Residency Training Committee Member 2014-Present
	UBC Faculty of Medicine, Undergraduate Director for Ophthalmology and Vision Science, 2010-Present
	Resident Selection Committee, UBC Dept Ophthalmology and Vision Science, 2018

### **COMMITTEE PARTICIPATION**

Name	Committee
Dr. Jane Gardiner	UBC Opthalmology and Vision Science Continuing Education Committee, 2008- present
	Royal College of Physicians and Surgeons of Canada Fellowship examiner 2007-Present
Dr. Deborah Giaschi	BC Children's Hospital MRI Research Facility, Director of Operations
	NSERC Undergraduate Student Research Awards, UBC Faculty of Medicine coordinator
	UBC High Field MRI Centre Protocol Review committee, member
	BC Children's Hospital MRI Research Facility Protocol Review committee, member
	Ophthalmology Executive Advisory Committee, member
	Residency Training Committee, Ophthalmology, member
	Summative Peer Review of Teaching, UBC Faculty of Medicine, Departmental rep
	Ophthalmology Head Review Committee, member

### **COMMITTEE PARTICIPATION**

Name	Committee
Dr. Conor Mulholland	Chair of the Professional Standards Committee of the Canadian Orthopic Council
Dr. David Rossman	Canadian Society of Oculoplastic & Reconstructive Surgery 2007-Present
	Diplomat of the American Board of Ophthalmology 2005-Present
	Fellow of the Royal College of Physicians and Surgeons of Canada 2004-Present
Dr. Vivian Yin	Chair. Canadian Association for Public Health and Global Ophthalmology, Canadian Ophthalmology Society
	Global Education and Outreach Committee, American Academy of Ophthalmology
	Vice Chair, Board of Directors SEVA 2017- 2018 (acting chair 2018-2019)
	Annual Meeting Planning Committee. Canadian Ophthalmology Society 2017- Present
Name	Publication Citation
----------------------	---
Dr. Peter Dolman	<ol> <li>Tinker D, Pollock C, Mendelsohn D, Dolman PJ. A lance through the orbit, Can J Ophthalmol. 2018</li> <li>Dolman PJ. Grading severity and activity in Thyroid Eye Disease. Ophthalmic Plast Reconstr Surg.</li> <li>Mawn LA, Dolman PJ, Kazim M, Strianese D, Genol I, Chong KKL, Sullivan TJ, Korn BS, Naik M, Dutton J, Velasco E Cruz A, Li C. Soft tissue metrics in Thyroid eye disease: an international thyroid eye disease society reliability study. Ophthalmic Plast Reconstr Surg. 2018 Feb</li> </ol>
Dr. Jane Gardiner	<ul> <li>1. Joint Clinical Practice Guideline Expert Committee of the Canadian Association of Optometrists and Canadian ophthalmological Society, Delpero WT, Robinson BE, <b>Gardiner JA</b>, Nasmith L, Rowan-Legg A, Tousignant B. Evidence- based clinical practice guidelines for the periodic eye examination in children aged 0-5 years in Canada. Canadian Journal of Optometry, 2019, Vol 81(4), 9-28.</li> <li>2. Joint Clinical Practice Guideline Expert Committee of the Canadian Association of Optometrists and Canadian</li> <li>Ophthalmological Society, Delpero WT, Robinson BE, Gardiner JA, Nasmith L, Rowan-Legg A, Tousignant B. Evidence- based clinical practice guidelines for the periodic eye examination in children aged 0-5 years in Canada. Can J Ophthalmol. 2019 Dec:54(6):751-759</li> </ul>

Name	Publication Citation
Dr. Jane Gardiner	3. Nathoo N, Nazarali S, <b>Gardiner JA</b> , Maberley D. Evaluation of ophthalmology clerkships across teaching sites at the University of British Columbia, Canadian Journal of Ophthalmology, 2019 April;54(2):150-154.
Dr. Deborah Giaschi	<ol> <li>Meier K, Giaschi D. (2019) The effect of stimulus area on global motion thresholds in children and adults. Vision 3(10):1-11</li> <li>Patanen M, Siegel L, Giaschi D.(2019) Longitudinal outcomes of an individualized and intensive reading intervention for third grade students. <i>Dyslexia</i> 25:227-245</li> <li>Kugathasan L, Partanen M, Chu V, Lyons C, Giaschi D. (2019) Reading ability of children treated for amblyopia. <i>Vision Research</i> 156:28-38</li> <li>Partanen M, Siegel L, Glaschi D. (2019) Effect of reading intervention and task difficulty on orthographic and phonological reading systems in the brain. <i>Neuropsychologia</i> 130:13-25</li> <li>Meier K, Partanen M, Giaschi D. (2018) Dichoptic attentive motion tracking is biased toward the nonamblyopic eye in strabismic amblyopia. Investigative Ophthalmology &amp; Visual Science 59(11):4572- 4580</li> </ol>

Name	Publication Citation				
Dr. C.J. Lyons	<ol> <li>Correlation of novel PAX-6 gene abnormalities in aniridia and clinial presentation. Sannan NS, Gregory-Evans CY, Lyons CJ, Lehman AM, Langlois S, Warner SJ, Zakrewsky H, Gregory-Evans K. Can J Ophthalmol 2017;52:570-577</li> <li>Correlating the Expression and Functional Activity of ABCA4 Disease Variants with the Phenotype of Patients with Stargardts Disease Garces F, Jiang K, Molday LL, Stohr H, Weber BH, Lyons CJ, Maberley D, Molday RS Invest Ophthalmol Vis Sci 2018;59:2305- 2315</li> <li>Reading ability of children treated for amblyopia. Kugathasan L, Partanen M, Chu V, Lyons C, Giaschi D Vision Research 2019</li> </ol>				
Dr. Patrick Ma	<ul> <li>1. Ozurdex for macular Edema Secondary to Diabetic Macular Edema, Retinal Vein Occlusion, and Non-infectious Uveitis. Salina Teja, MDA; Lauren Sawatzky, MDA; Theresa Wiens, MSC, CCRPA: David Maberley, MD, FRCSCA; Patrick Ma, MD, FRCSCA Department of Ophthalmology &amp; Visual Sciences, University of Biritsh Columbia, Vancouver, British Columbia - May 29, 2018</li> <li>2. Featuring the Nd:YAG laser capsulotomy in the operating room. Promelle V, Armanik S, Lyons CJ. Int J Opthalmol. 2020 Mar 18;13(3):523-524. doi:10.18240/ijo.2020.03.25</li> </ul>				

# 2018-2019

Name

Dr. Vivian Yin

**Publication Citation** 

1. Liu RT, Henkleman E, Popescu O, Yin VT. Nodular fascitis: A rapidly enlarging destructive periorbital mass in an infant. Am J Ophthalmic Case Reports 2018 Apr 19 https://doi.org/10.1016/k.ajoc.2018.04.019

2. Chen LYC, Qi R, Park S, Irvine R, Sideman M, Kelsall JY, Collins D, Yin VT, Slack G, Mattman A, Carruthers MN. Utility of serym IgG4 levels in multiethnic population. *AM J Med Sci* 2018;355(1):61-66. PMID: 29289265

## **INITIATIVES IN PROGRESS**

#### 2018-2019

Dr. Deborah Giaschi

- 1. Meier, Spering, Giaschi. Fixational stabilityduring motion tasks in amblyopia.
- 2. Tardif J, Watson M, Giaschi D, Gosselin F. Development of the contrast sensitivity function.
- 3. Meier K, Candy R, Seemiller E, Wilcox L, Giaschi D. Vergence eye movements driven by fine and coarse stereo stimuli in young children.
- 4. Giaschi D, Birch E. The effect of binocular amblyopia treatment on motion-defined form perception deficits.

# 2018-2019

#### Dr. Deborah Giaschi

5. Meier K. Wilcox L. Giaschi D. The development of coarse and fine stereopsis in children with amblyopia or strabismus. 6. Watson M. Stockler S. Giaschi D. Assessment of contrast sensitivity in children with phenylketonuria. 7. Giaschi, Niechwiej-Szwedo. Typical and atypical development of handeye coordination and motion perception. 8. Giaschi D, Synnes, A, Grunau R. Effect of preterm birth on motion perception. 9. Ho C, Shahin Y, Reis H, Grenier S, Giaschi D. Binocular treatment for amblyopia in adults and children with low-pass filtering when occlusion therapy fails. 11. Javadian F, Chakrabarty A, Wilcox L. Giaschi D. Evidence from amblyopia for shared processing of motion perception and stereopsis.

<b>AWARDS</b>	
---------------	--

Dr. Peter Dolman	VGH Hospital Bobby Miller Award for excellence in teaching 2018				
	Ophthalmology department resident's teaching award for best surgical teacher 2018				
Dr. Deborah Giaschi	Killam Teaching Prize, UBC Faculty of Medicine 2017/2018				
Dr. Christopher J. Lyons	UBC Department of Ophthalmology Clinical Research Award 2018				
Dr. Vivian Yin	Canadian Women Leaders in Global Health Canadian Society of International Health 2018				

# DIVISION OF PEDIATRIC OPHTHALMOLOGY



### FACULTY MEMBERS ON-SITE

### 2019-2020



Dr. Maryam Aroichane



Dr. Conor Mulholland



Dr. Jane Gardiner -Interim Department Head



Dr. Christopher Lyons

# FACULTY MEMBERS OFF-SITE

- Dr. David Albiani
- Dr. T. Alan Demco
- Dr. Peter Dolman (Oculoplastics)
- Dr Ross Kennedy
- Dr. Ashley Ko

- Dr. Patrick Ma (Retina)
- Dr. Andrew Merkur (Retina)
- Dr. Katherine Paton (Ocular Oncology)
- Dr. Megan Rees
- Dr. David Rossman (Oculoplastics)
- Dr. Vivian Yin

# **RESEARCH DEPARTMENT**

#### • Dr. Deborah Giaschi

### **STAFF MEMBERS**

#### **Orthoptic Staff**

- Christy Giligson
- Grace Harradine
- Andrea Quan
- Vaishali Mehta
- Debbie Zylich

#### **Visual Impairment Program**

• Dr. Carey Matsuba

#### **Administrative Staff**

**Electrophysiology Staff** 

• Inder Akali

Linn Moore

- Joan Baldos
- Latifah Elananza
- Chloe Gregg
- Brenda Jew
- Jassirat Kaur
- Jasmine Lee
- Ivania Ramirez
- Sabrina Ramlogan
- Natalie Wong

#### Page 45

### 2019-2020

## 2019-2020

#### **Medical Student Teaching**

Dr. Jane Gardiner is Director of the Undergraduate Training Program for the UBC Department of Ophthalmology and Visual Sciences. BC Children's Department of Ophthalmology is regularly involved in teaching 3rd year clinical clerkship UBC medical students. As part of the clerkship, medical students rotate through ophthalmology for one week. During that week, they spend one half to one day in pediatric ophthalmology. We also teach 4th year elective students. All our staff, both onsite and in the community, regularly work as preceptors to the UBC medical students.

#### Residents

Residents in ophthalmology rotate through our department on a regular basis. The Ophthalmology residency program admits 3 residents per year. The residents spend 8 weeks in their 3rd year and another 8 weeks in their 4th year, in our department. The first rotation is slanted towards clinicbased learning wheras the second has a heavier surgical emphasis. They gain exposure to the world of pediatric ophthalmology and become proficient in the diagnosis and management of common pediatric ophthalmology problems, both from a medical and surgical standpoint.

Residents on the neuro-ophthalmology rotation and residents from pediatric neurology also attend Dr. Maryan Aroichane's clinic.

# 2019-2020

#### **Fellowship Training Program**

Under the leadership of Dr. Christopher Lyons, the BC Children's Department of Ophthalmology offers two, one-year fellowship positions. The Fellowship experience is inclined towards clinic-based decisionmaking, since each patient seen by the Fellow is subsequently reviewed by Staff. Over the course of their year in Vancouver, each Fellow could expect to assess at least 2500 children with pediatric ophthalmology or strabismus problems. The fellows also gain ample surgical exposure at BCCH. The fellows are actively involved in teaching both within our department and to other residents at BC Children's - most notably emergency and pediatric residents. The fellows are involved in research and outreach clinics. The program has been well reviewed by current and past fellows.

#### FELLOWS SUPERVISED

#### Pediatric Ophthalmology

Oded Rock Veronique Promelle Fabiola Jerez Carvajal Aaron Winte**r** 

#### **Neuro Ophthalmology**

Jiemen Zhou Yasmine Rabia Oded Rock Michael Thorne Oculoplastics

Lily Zhao Magdalena Wirth

#### Retina

Travers Weaver Munir Iqbal Dvir Koenigstein Maria Sainz Ugarte Kunny Dans

### 2019-2020

#### RESIDENTS SUPERVISED

- Gelareh Noureddin Salina Teja Kathryn Clapson Gavin Docherty Myra Butler Mitchell Browne Rosanna Martens Colten Wendel Geoffrey Law
- Wendy Ming Grace Qiao Henry Chen Lauren Sawatzky Carol Tadrous Maryam Eslami Rob Pintwala Amanda Schlenker

#### STUDENTS SUPERVISED

#### **Undergraduate Research Students**

Laveniya Kugathasan Kevin Chang Ingrid Yuen Yu Yan Zhang Nolan Chem Paige Graffos Sabrina Hou

#### **Orthoptics Students**

Lauren Bland

Name	Lectures/Presentations
Dr Peter Dolman	Invited lectures / visiting professor: Singapore Nat'l Univ, Hong Leong International Scholarship, SINGAPORE May 019
	Orbit Society, SPAIN June 2019
	LV Prasad Visiting Professor Scholarship, Bhubaneshwar, INDIA June 2019
	Argentinian Oculoplastics Society, Invited speaker, Cordoba, ARGENTINA Jun 2019
	EUGOGO Invited Keynote speaker, Pisa ITALY Nov 2019
	ASOPRS Spring Meeting Invited Speaker. USA Zoom conference April 2020
Dr Deborah Giaschi	Patching-resistant deficits in amblyopia. Canadian Amblyopia network meeting. Vancouver,BC
	A vision science perspective on amblyopia and its treatment. BCCH summer student program
	Chakraborty A, Javadian F, Wilcox L, Giaschi D. (2019) Evidence from amblyopia for shared processing of motion perception an stereopsis. Journal of Vision 19:166d. poster presentation
	Meier K, Spering M, Giaschi D. (2019) Fixation stability is not related to global motion deficits in amblyopia. IOVS 60:1026. oral presentation
	Shahin Y, Meier K, Giaschi D. (2019) The effect of visual field location and speed on global motion perception in children and adults. IOVS 60:4375. poster presentation
	Ho C, Shahin Y, Reis H, Grenier S, Giaschi D. (2019) Binocular treatment for amblyopia in adults and children with low-pass filtering when occlusion therapy fails. IOVS 60:218. poster presentation
	Javadian F, Chakraborty A, Giaschi D (2019) Do motion perception and binocular function share common processing mechanisms? Journal of Investigative Medicine 67:227. oral presentation

Name	Lectures/Presentations
Dr. Jane Gardiner	Surgical Suites Rounds, "Equity, Diversity and Inclusion Strategy In Surgical Suites: Taking Social Determinants 'Vital Signs' To Address Adversity and Disparities", with Dr Christine Loock, November 17, 2020
	BC Dept of Ophthalmology Grand Rounds (Update on the Undergraduate Curriculum) Jan 18, 2019
	Parent Education Meeting for JIA,, Cassie and Friends, Invited Speaker, Oct 26, 2019
	Canadian Rheumatology Association, Annual Meeting, Victoria BC, Invited Speaker, "Uveitis in Pediatric Rheumatologic Disease – A collaborative approach", with Dr Andrea Human, February 27, 2020 and Meet the Expert Session.
	Vancouver Pediatric Ophthalmology Meeting Sept 2019; Invited Speaker, "Misadventures with Adenovirus"
Dr. Ashley Ko	Ko A and Paton K. Just a Cataract? 11th Biennial Pediatric Ophthalmology and Strabismus Conference. Vancouver, BC. September 2019. (By invitation).
Dr. C.J. Lyons	CHAIR, BIENNIAL VANCOUVER PEDIATRIC OPHTHALMOLOGY AND STRABISMUS CONFERENCE, SEPTEMBER 2019
	PRESENTER BIENNIAL VANCOUVER PEDIATRIC OPHTHALMOLOGY AND STRABISMUS CONFERENCE, SEPTEMBE 2019: `MY CHILD CAN'T SEE!'
	CHAIR, UBC OPHTHALMOLOGY ROUNDS NOVEMBER 8 2019: PROFESSOR GRAHAM HOLDER. `NOW THAT RETINAL IMAGING IS SO GOOD, WHY DO WE STILL NEED ELECTROPHYSIOLOGY?
	COURSE ORGANIZER, NOVEMBER 8 0930-1700; PROFESSOR GRAHAM HOLDER: RETINAL ELECTROPHYSIOLOGY
	Invited Professor Fundacion Santa Fe de Bogota University Hospital Universidad de los Andes School of Medicine, Colombia May 2019: 1: Ocular manifestations of Systemic Disease in childhood 2: Goniotomy: current indications 3: Fetal experience and its implications for the child and the adult

Name	Lectures/Presentations
Dr. C.J. Lyons	ASSOCIATION FOR RESEARCH IN VISION AND OPHTHALMOLOGY (ARVO) MAY 2019: 1: RESTRAINING THE OVER ACHIEVER: A NEW ALGORITHM FOR INCOMITANT STRABISMUS. Armarnik S, Lyons CJ 2: WHY GONIOTOMY? ASSESSING OUTCOME AFTER GONIOTOMY FOR THE SPECTRUM OF PEDIATRIC GLAUCOMAS. Armarnik S, Farrell, S, Lyons CJ
	CANADIAN OPHTHALMOLOGY SOCIETY (COS) JUNE 2019: 1: COMPLICATED STRABISMUS. (PANEL MEMBER AT PEDIATRIC OPHTHALMOLOGY SECTION WORKSHOP) 2: SCOTT RESECT-RECESS PROCEDURE FOR INCOMITANT STRABISMUS 3: GONIOTOMY OUTCOMES FOR THE SPECTRUM OF PEDIATRIC
	GLAUCOMAS
	Invited Professor, Stanford University, Palo Alto California, United States of America, May 2018
	Invited Guest Lecturer, Jules Stein Institute, University of California Los Angeles, June 2018
	Invited Guest lecturer, Moorfields Eye Hospital, London England July 2018
	Invited Professor, King Saud University Hospital Riyadh Saudi Arabia November 2018
	Invited Guest Lecturer, Cali Hospital Department of Ophthalmology, Cali Colombia May 2019
Dr. Patrick Ma	COIS Meeting Toronto May 10-11, 2019Brolucizumab for Neovascular Age-Related Macular Degeneration
Dr. Conor Mulholland	UBC Dept of Ophthalmology Grand Rounds Presentation on Pediatric Orbital Rhabdomyosarcoma
	UBC Dept of Ophthalmology Pediatric Journal Club April 24th 2019
	11th Biennial Pediatric Ophthalmology and Strabismus Conference Vancouver Sept 2019 Sight-threatening Strabismus Complications

Name	Lectures/Presentations
Dr. Megan Rees	2019 Speaker at BC Rural Health Conference (Pediatric Ophthalmology What Not to Miss), May 24-26, Nanaimo
Dr Vivian Yin	Lumps and bumps for general ophthalmologist. PHC Winter Clinical Day, Feb 22, 2020
	<ul> <li>2019 American Academy of Ophthalmology Annual Meeting. Oct</li> <li>12-15, 2019. San Francisco, USA.</li> <li>a. Conceptual Approach: Orbital lymphoproliferative disease</li> <li>b. Radiology of orbital tumors</li> <li>c. Case: Optic nerve sheath meningioma</li> <li>d. Case: Recurrent lacrimal gland adenoid cystic carcinoma</li> <li>e. Gender and Blindness: Initiative to produce equity</li> </ul>
	Current Status: Targeted therapy for locally advanced periocular malignancies. CyberSight, Orbis International, New York. July 17, 2019.
	Nepal Ophthalmic Society Annual Conference 2019, Sept 27-28, 2019. Lumbini, Nepal f. Tips on creating an aesthetic reconstruction with Hughes Flap after cancer resection g. Leadership and Gender
	7th Annual COECSA Congress, Aug 21-23, 2019. Kigali, Rwanda. h. Toxicity of cancer treatment for ophthalmologist i. Pediatric orbital tumors j. Update on targeted therapy for locally advanced periocular and orbital malignancies k. Tips on aesthetic cancer reconstruction
	Invited Lecturer. Rwanda International Institute of Ophthalmology, Aug 20, 2019. I. Approach to management of orbital mass Oculoplastic & orbit basics
	Global Ophthalmology Beyond Vision 2020. Grand Rounds, UBC Department of Ophthalmology & Visual Sciences, May 24, 2019.
	Recognition and management of cosmetic filler complications. Annual Congress of the European Society of Ophthalmic Plastic and Reconstructive Surgery. Bucharest, Romania, Sept 13-15, 2018.

Name	Lectures/Presentations
Dr Vivian Yin	<ul> <li>Invited Speaker. XXXVIII</li> <li>National and International Congress of the Sociedad Columbiana de Oftalmologia. Cartagena de Indias, Colombia. July 25-28, 2018.</li> <li>a. Current update and controversies of hedgehog pathway blockage</li> <li>b. Addressing complex orbital vascular malformation with multidisciplinary approach</li> <li>c. Evidence for best management of lacrimal gland tumors</li> <li>d. Periocular side effects from targeted therapy and cancer management</li> <li>e. Working with complex facial flaps after cancer resection</li> <li>Visiting Speaker. Combined University of Missouri Columbia-Kansas City Symposium. April 20-21, 2018. Columbia, MO.</li> <li>a. Toxicity of cancer treatment for the general ophthalmologist</li> <li>b. What is the current landscape of global ophthalmology?</li> </ul>

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
NSERC	Brain Mechanisms underlying human motion perception	С	\$39 000	2017- 2022	Giaschi	
National Eye Institute R01	Accommodation and defocus in the infant visual system	С	\$368,596	2017- 2022	T.R. Candy	A. Chen, A. Bradley, D. Lyon, K. Huang, L. Wilcox, L. Cormack, D. Giaschi

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
Canada First Research Excellence Fund	The role of coarse stereopsis in amblyopia treatment outcomes	C	\$25,000	2019- 2020	L. Wilcox	
National Eye Institute through DRCR.net	Intravitreous Anti- VEGF Treatment for Prevention of Vision Threatening Diabetic Retinopathy in Eyes at High Risk	NC	\$5,000	2016- 2021	E. Navajas	P. Ma D. Maberley D. Albiani A. Kiker A. Merkur
Gilead Sciences	A Phase 2, Randomized, Placebo- Controlled Trial Evaluating the Efficacy and Safety of Filgotinib in Subjects with Active Non- Infectious Uveitis	NC	\$75,000	2017- 2019		D. Maberley Z. Mammo

GRANTING AGENCY	TITLE	СОМР	\$/YEAF	R YEAR	PI	CO-PI
Hoffman-La Roche Ltd. (Canada)	A Phase III Multicenter, Randomized, Double-masked, Active comparator- Controlled study to evaluate the efficacy and safety of Fabricimab in patients with Neovascular Age- related Macular Degeneration (Tenaya)	NC	\$173,451	2019-2021	D. Maberley	P. Ma D. Mammo D. Albiani A. Kiker A. Merkur
Hoffmann-La Roche Ltd. (Canada)	GR40398 "A phase III, multicenter, randomized, double-masked, active comparator- controlled study to evaluate the efficacy and safety of RO6867461 in patients with Diabetic Macular Edema"	NC	\$173,451	2019-2021		D. Maberley D. Mammo D. Albiani A. Kiker A. Merkur

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
IVERIC bio, Inc.	A Phase 3 multicenter, Randomized, Double-masked, Shamcontrolled clinical trial to assess the safety and efficacy of Intravitreal administration of Zimura (complement C5 inhibitor) in patients with geographic atrophy secondary to dry age-related macular degeneration	NC	\$106,289 2	2020-2023	A. Merkur	P. Ma D. Maberley Z. Mammo D. Albiani A. Kiker

# **COMMITTEE PARTICIPATION**

Name	Committee
Dr. Peter	VGH Advisory Committee
Dolman	UVC Dept of Ophthalmology Advisory Committee
	UBC Residency Training Committee
	ECC OR Committee
Dr. Jane Gardiner	BC Society of Eye Physicians and Surgeons, Economics Committee 2020
	UBC Faculty of Medicine, Undergraduate Medical Executive Committee, June 2018- present
	BCCH Department of Ophthalmology, Interim Head, July 2016-Present
	UBC Ophthalmology and Vision Science, Executive Committee 2016-Present
	UBC Ophthalmology and Vision Science, Residency Training Committee Member 2014- Present
	UBC Faculty of Medicine, Undergraduate Director for Ophthalmology and Vision Science, 2010-Present
	UBC Ophthalmology and Vision Science Continuing Education Committee, 2008- Present
	Royal College of Physicians and Surgeons of Canada Fellowship examiner 2007-Present

# **COMMITTEE PARTICIPATION**

Name	Committee
Dr. Patrick Ma	VGH Credentials Committee
Dr. Vivian Yin	Chair, Board of Directors SEVA Canada 2019- present
	International Council of Ophthalmology Representative, COS 2020-Present
	Board of Directors, Vancouver Physician Staff Association/VDMAS 2019-Present
	Region 1 Representative, Specialty Committee in Ophthalmology, Royal College of Physician and Surgeons 2019-Present
	Annual Meeting Planning Committee. Canadian Ophthalmology Society 2017-Present
Dr. Deborah Giaschi	Faculty Appointments, Re-appointments, Promotion, Tenure Committee, UBC Faculty of Medicine, member
	NSERC Undergraduate Student Research Awards, UBC Faculty of Medicine, coordinator
	UBC High Field MRI Centre Protocol Review committee, member
	BC Children's Hospital MRI Research Facility Protocol Review committee, member
	Ophthalmology Executive Advisory Committee, member
	Residency Training Committee, Ophthalmology, member

# **COMMITTEE PARTICIPATION**

2019-2020

Name

Dr. Conor Mulholland

#### Committee

Chair of the Professional Standards Committee of the Canadian Orthoptic Council

# **PUBLICATION RECORDS**

# 2019-2020

Name

### Publication Citation

Dr. Jane Gardiner

- 1. Joint Clinical Practice Guideline Expert Committee of the Canadian Association of Optometrists and Canadian Ophthalmological Society, Delpero WT, Robinson BE, Gardiner JA, Nasmith L, Rowan-Legg A, Tousignant B
- 2. Evidence-based clinical practice guidelines for the periodic eye examination in children aged 0-5 years in Canada. Canadian Journal of Optometry, 2019, Vol 81(4), 9-28.
- 3. Joint Clinical Practice Guideline Expert Committee of the Canadian Association of Optometrists and Canadian Ophthalmological Society, Delpero WT, Robinson BE, Gardiner JA, Nasmith L, Rowan-Legg A, Tousignant B.
- 4. Evidence-based clinical practice guidelines for the periodic eye examination in children aged 0-5 years in Canada. Can J Ophthalmol. 2019 Dec;54(6):751-759.
- 5. Nathoo N, Nazarali S, Gardiner JA, Maberley D. Evaluation of ophthalmology clerkships across teaching sites at the University of British Columbia, Canadian Journal of Ophthalmology, 2019 April;54(2):150-154

### 2019-2020

Name

#### Dr. Peter Dolman

**Publication Citation** 

1. Bahrami B, Curragh D, McNab AA, Davis G,	
Dolman PJ, Selva D. Primary Nasocutaneou	JS
Fistulae in Granulomatosis With Polyangiiti	s: A
Case Series and Literature Review. Ophthal	mic
Plast Reconstr Surg. 2020 Apr 9. doi: 10.109	
2 Currente DC Kanadaraiah C Lasau D Mikita	ст

- 2.Curragh DS, Kamalarajah S, Lacey B, White ST, McNab AA, Kalantzis G, Dolman PJ, Selva D, Rajak SN. Primary replacement for the management of exposed orbital implant. Orbit. 2019 June 1:11
- 3. Adulkar N, Cheng C, Lee L, Rasmussen S, Dolman PJ, Yin VT. An In Vitro Model Assessing the Penetration of Hyaluronidase through Optic Nerve Dura for Management of Hyaluronic Acid Facial Filler Embolism. Plast Reconstr Surg. 2019 Jul;144(1):43e-47e

#### Chapters:

- 1. Dolman PJOO Surgical Management of Compressive Optic Neuropathy in Active TED in Rath S and Naik M. "Surgery in Thyroid Eye Disease: a conceptual approach" Springer, 2020
- 2. Dolman PJ Orbital Floor Decompression. In Rath S and Naik M "Surgery in Thyroid Eye Disease: a conceptual approach" Springer, 2020
- 3.Dolman PJ Clinical Evaluation and Medical Management of TED, American Academy and ASOPRS On-line Teaching Modules, 2019

Dr. Christopher J. Lyons 1.Accepted: The management of limbal dermoids by simple excision in young children authors are Promelle V and Lyons CJ

Name	Publication Citation
Dr. Conor Mulholland	1.Congenital Cranial Dysinnervation Disorder: An Unusual Phenotype With Multiple Cranial Neuropathies and Novel Neuroimaging Findings. Salman MS, Mulholland C, Wrogemann J, Marin SE. Congenital Cranial Dysinnervation Disorder: An Unusual Phenotype With Multiple Cranial Neuropathies and Novel Neuroimaging Findings. J Neuroophthalmol. 2019Sep;39(3):348-351
Dr. Deborah Giaschi	<ol> <li>Shahin Y, Meier K, Giaschi D. (2020) The effect of visual field location on global motion perception: A developmental study. Perception 49(7): 733-748</li> <li>Niechwiej-Szwedo E, Meier K, Christian L, Nouredanesh M, Tung J, Bryden P, Giaschi D. (2020) Concurrent maturation of visuomotor skills and motion perception in typically- developing children and adolescents. Developmental Psychobiology 62:353-367.</li> <li>Birch E, Jost R, Wang Y-Z, Kelly K, Giaschi D. (2019) Impaired fellow eye motion perception and abnormal binocular function in amblyopia. Investigative Ophthalmology &amp; Visual Science 60:3374-3380</li> <li>Birch E, Kelly K, Giaschi D. (2019) Fellow eye deficits in amblyopia. Journal of Binocular Vision and Ocular Motility 69:116-25</li> </ol>

Name	Publication Citation
Dr. Vivian Yin	<ol> <li>Teja S, Mann C, Hooper P, Buys Y, Yin VT. The Canadian Ophthalmology Society's adaptation of the medically necessary time sensitive surgical procedures triage and prioritization tool. Can J Surgery (In Press)</li> <li>Yin VT, Barker CA, Francis J, Jaben K. Ocular anterior segment ischemia from internal eye shield during radiotherapy. (In Press)</li> <li>Daigle P, Leung V, Yin V, Kalin-Hajdu E, Nijhawan N. Personal protective equipment (PPE) during the COVID-19 pandemic for oculofacial plastic and orbital surgery. Orbit. DOI:10.1080/01676830.2020.1781200</li> <li>Hussain A, Tucker N, DeAngelis DD, Yin VT, Ing E, Arthurs B, Gill HS, Hardy I, Hurwitz J, Kratky V Maleki B, Nijhawan N, Oestreicher J, Zafar A. Guidelines for vismodegib in the management of periocular basal cell caricoma. Can J Ophthalmol 2019 Dec 31 [Epub ahead of print] PMID: 31901307</li> <li>Adulkar N, Cheng C, Lee L, Rasmussen S, Yin VT. Permeability of optic nerve by high concentration of hyaluronidase for management of hyaluronic acid facial filler emoblism. Plastic Reconstr Surg 2019 Jul; 144(1):43e-48e. PMID: 31246809</li> <li>Francis JH, Barker CA, Yin VT, Carvajal RD, Chapman P, Abramson DH, Gobin YP. Chemoreduction of orbital recurrence of uveal melanoma by intraarterial melphalan. Ocular Oncol Pathol 2019 Apr; 5(3):186-189. PMID: 31049326</li> </ol>

Name	Publication Citation
Dr. Vivian Yin	<ul> <li>7. Oded S, Bell D, Su S, Wester ST, Jiang K, Yin VT, Shinder R, Hayek B, Kim HJ, Tetzlaff MT, Esmaeli B. Pathological features and clinical course in patients with recurrent or malignant orbital solitary fibrous tumor/hemangiopericytoma. Ophthalmic Plastic Reconstr Surg (In Press)</li> <li>8. Mori S, Navarrete-Dechent C, Petukhova TA, Lee EH, Rossi AM, Posthof MA, Dunn LA, Roman BR, Yin VT, Coit DG, Hollman TJ, Busam KJ, Nehal KS, Barker CA. Tumor board conferences for multidisciplinary skin cancer management: A survey of US cancer centers. JNCCN (In Press)</li> </ul>
	ABSTRACTS 1. Yin VT. Efficacy and challenges of hedgehog inhibition for LaBCC prior to surgery. 2019 Canadian Ophthalmology Society Annual Meeting. Jun 13-16, 2019. Quebec City, Quebec

Dr. Maryam Aroichane	Clinical and Magnetic Resonance Imaging findings in optic nerve aplasia. Fabiola Jerez, Veronique Promelle, Mark Halverson, Maryam Aroichane. Submitted to JAAPOS, Fall 2020
Dr. Deborah Giaschi	Meier, Spering, Giaschi. Fixational stability during motion tasks in amblyopia.
	Tardif J, Watson M, Giaschi D, Gosselin F. Development of the contrast sensitivity function.
	Meier K, Candy R, Seemiller E, Wilcox L, Giaschi D. Vergence eye movements driven by fine and coarse stereo stimuli in young children.
	Giaschi D, Birch E. The effect of binocular amblyopia treatment on motion-defined form perception deficits.
	Giaschi D, Synnes, A, Grunau R. Effect of preterm birth on motion perception.
	Ho C, Shahin Y, Giaschi D. Binocular treatment for amblyopia in adults and children with low-pass filtering when occlusion therapy fails.

Dr. Deborah Giaschi	Javadian F, Chakrabarty A, Wilcox L, Giaschi D. Evidence from amblyopia for shared processing of motion perception and stereopsis.
	Christian L, Partanen M, Niechwiej- Szwedo E, Giaschi D. The importance of binocular vision to visuomotor control and reading.
	Chang K, Shahin Y, Wilcox L, Giaschi D. The role of coarse stereopsis in amblyopia treatment outcomes.
	Hou S, Zhang Y, Shahin Y, Niechwiej- Szwedo E, Giaschi D. Visuomotor control in children with amblyopia.
	Chang K, Meier K, Wilcox L, Giaschi D. Coarse stereopsis and eye alignment in strabismus.
	Chang K, Shahin Y, Watson M, Stockler S, Giaschi D. Assessment of contrast sensitivity in children with phenylketonuria
Dr. Deborah Giaschi	Ko, A, Pfeifer WL, Longmuir SQ, Scott WE. Comparison of prescribing patterns of eye care professionals to published guidelines for children. JPOS. Pending submission.

Dr. Ashley Ko	2015 – Present Rapid Access to Consultative Expertise (RACE) Provide telephone consultation services to family physicians and nurse practitioners across British Columbia and Yukon
Dr. Patrick Ma	Submitted to Publisher for review Reference: JCJO 1921 Re: Exudative retinal detachment secondary to hypertensive crisis related to membranous nephropathy
Dr. Vivian Yin	Shan A, Ng T, Yin VT. Orbital Schwannoma with cystic degeneration in the medial rectus muscle. Ophthalmic Plastic Reconstr Surg (In submission)
	Tai F, Rasmussen S, Yin VT. An Atypical Eyelid Steatocystoma Mimicking Melanoma in Gorlin Syndrome. British J ophthalmol (In submission)
	Morin J, Rasmussen S, Yin VT. Diffuse large B-cell lymphoma mimicking subperiosteal orbital abscess. Ophthalmic Plastic Reconstr Surg (In submission)

Dr. Vivian Yin	Lacrimal gland epithelial carcinoma: Genetics screen for actionable mutations. Collaborators: Dr. Peter Dolman, Dr. Roman Shinder Memorial Sloan Kettering Cancer Center
	Dose tolerance of the optic nerve to direct radiation for paranasal sinus or skull base malignancies. Collaborators: Dr. Eric Tran, Dr. Peter Dolman Department of Radiation Oncology, BC Cancer Agency
	Thyroid Eye Disease: Epidemiology and prevalence of reactivation after orbital decompression. Collaborators: Drs. Peter Dolman, David Rossman, Tom Liu University of British Columbia, Vancouver, Canada
Dr. Vivian Yin	Taylor and Hoyt's Pediatric Ophthalmology and Strabismus, 6th Edition.
	How effective is isolated Inferior Oblique Myectomy for ipsilateral Superior Oblique palsy? Sharon Armarnik (F), Sheetal Shirke (F), Elham Alqahtani (F), Christy Giligson, Vaishali Mehta, Christopher J Lyons. In progress Fall 2020
	Goniotomy for the childhood glaucomas: Where is it most useful? Sharon Armarnik (F), Stephen Farrell (F), Christopher J Lyons. Submitted to JAAPOS 2020

# DIVISION OF PEDIATRIC ORTHOPAEDIC SURGERY



# **FACULTY MEMBERS**

# 2018-2019



**Dr. Christopher W. Reilly** Associate Professor, Department Head



Dr. Christine M. Alvarez, Clinical Associate Professor



**Dr. U.K. Kishore Mulpuri,** Associate Professor



**Dr. Firoz Miyanji** Clinical Assistant Professor

Dr. Arvindera Ghag Clinical Instructor



**Dr. Anthony Cooper** Clinical Assistant Professor



**Dr. Lise Leveille** Clinical Instructor

**Dr. Shafique P. Pirani** Clinical Professor

Alec Black Clinical Instructor

# **STAFF MEMBERS**

#### • Kristen Adams, Administrative Coordinator

- Emily Schaeffer, Research (for Drs. Reilly and Mulpuri)
- Eva Habib, Research (for Dr. Mulpuri)
- Roya Yamini, Research (for Dr. Mulpuri)
- Harpreet Chhina, Research (for Dr. Cooper)
- Michele Stark, MOA to Dr. C. Reilly
- Marilynn Timbrell and Brenda Whitworth, MOAs to Dr. C. Alvarez
- Salima Damani MOA to Dr. K. Mulpuri
- Susan Ramiscal MOA to Dr. A. Cooper
- Valerie Walsh, MOA to Dr. F. Miyanji and Dr. A. Ghag
- Melissa Hart, MOA to Dr. Leveille
- Anna Stonehouse, MOA to Dr. S. Pirani
- Dolly Khanna, Nurse Clinician

- Dolly Khanna, Nurse Clinician
- Wendy Krishnaswamy Nurse Clinician
- Alyssa Robinson, Clinic Nurse
- Jennifer Dunlop, Nurse Practitioner
- Fidel Brooks, Cast Technician
- Ricardo Botia, Cast Technician
- Shelinah Kabani, Orthopaedic Clinic
- Manjit Bains, Orthopaedic Clinic
- Janis Bui, Orthopaedic Clinic
- Stacey Miller, PT, CP Hip Surveillance
- Nandy Farjardo, PT, Ortho Clinic
- Maria Juricic, PT, Ortho Clinic
- Daphne O'Young, OT, Ortho Clinic

# HIGHLIGHTS & ACHIEVEMENTS 2018-2019

#### Dr. Reilly

Stephen J Tredwell Visiting Professor Education Day. Dr. Haemish Crawford, Visiting Professor. BCCH Department of Orthopaedics, Vancouver, BC, November 9, 2018

#### Dr. Mulpuri

Qualis Health Award of Excellence in Healthcare Quality Recipient; St. Luke's Boise Medical Center collaboration for the DDH CareMap, 2018

#### Dr. Miyanji

 Candidate Hibbs Best Clinical Paper Award – A prospective multicenter analysis of the efficacy of Anterior Vertebral Body Tethering in the treatment of Idiopathic Scoliosis. Scoliosis Research Society Annual Meeting; Bologna, Italy, Oct 2018
 Vertebral Body Tethering – First Global Case of FDA approved device done Dec 2018

FELLOWS SUPERVISED	Dr. Christopher Chapman (Car Dr. Felix Brassard (Canada) Dr. Kyle Stampe (Canada) Dr. Ramez Ailabouni (New Zea Dr. Jonathan Lau (Canada) Dr. Nikki Hooper (New Zealand Dr. Liam Johnson (Australia)	August 1, 2017 - July 31, 2018 August 1, 2018 – July 31, 2019
FELLOW ELECTIVES	Abdullah Hammad (Pediatric Emergency Fellow, UBC)	August 27 - September 23, 2018
RESIDENTS SUPERVISED	Jennifer Hunter, PGY 2 Ian Wilson, PGY 5 Aresh Sepehri, PGY 2 Jennifer Nevin, PGY 4	February 26 - May 4, 2018 March 12 - April 6, 2018 March 12 - June 1, 2018 May 14 - June 29, 2018
	Ian Wilson, PGY 5 Sebastian Ko, PGY 5 Alex Hoffer, PGY 2 Michael Neufeld, PGY 5 Hannah Nazeroff, PGY 2 Jennifer Nevin, PGY 5 Michael Nitikman, PGY 2 Michael Bond, PGY 5	June 18 – June 29, 2018 July 1 – August 26, 2018 July 1 – September 23, 2018 August 27 – October 21, 2018 September 24 – December 16, 2018 October 22, 2018 – January 13, 2019 December 17, 2018 – March 10, 2019 January 14 – March 10, 2019
RESIDENT ELECTIVES	Jennifer Cutting (UBC) Ana Sofia Lopez (UBC) Sarah Riedlinger (UBC) Shay Seth (Ottawa) Jordan Farag (Ped Rehab UBC	March 29 – April 8, 2018 April 23 – May 6, 2018 July 12 – 27, 2018 January 14 – February 8, 2019 July 30 – October 21, 2018
STUDENTS SUPERVISED	Medical Students - 28 BCIT Prosthetic & Orthotics Shadowing Students - 12	
Dr. Reilly	"ACL Management in Pediatric Patients", Orthopaedic Update, Vancouver, May 2018-12-09	
-------------	---	
	"Update on Pediatric MSK Infection", Orthopaedic Update, Vancouver, May 2018	
	"Asymmetric Vestibular Function in Adolescents with Idiopathic Scoliosis" (Abstract), Poster presentation, CAN Meeting, Vancouver, British Columbia, May 13-16, 2018, Woo E, Reilly C	
Dr. Mulpuri	Slipped Capital Femoral Epiphysis - Old and New. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Randomized Controlled Trials in Pediatric Orthopaedics. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Decision making in Perthes: What do we know in 2017. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Management of the Hip in Cerebral Palsy. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Hip Surveillance: Creation and Application in British Columbia. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Building Teams in Surgery: The Dolphin Way. University of Saskatchewan Grand Rounds, Saskatoon, SK, May 18, 2018.	
	Visiting Professor: Building Teams in Surgery: The Dolphin Way. Manitoba Orthopaedic Society Meeting, MB, October 18, 2018.	
	Visiting Professor: Treatment Management of Supracondylar Fractures of the Humerus. Manitoba Orthopaedic Society Meeting, MB, October 18, 2018.	
	Visiting Professor: Developmental Dysplasia of the Hip Lessons: Learned from a Multicenter Prospective Study. Manitoba Orthopaedic Society Meeting, MB, October 18, 2018.	

#### Dr. Mulpuri

Visiting Professor: Building Teams in Surgery: The Dolphin Way. CHU Sainte-Justine Hospital Grand Rounds, Montreal, QC, November 14, 2018.

Visiting Professor: Need for non-inferiority trials in surgery. CHU Sainte-Justine Hospital Grand Rounds, Montreal, QC, November 14, 2018.

Visiting Professor: Prospective study groups and registries in surgery. CHU Sainte-Justine Hospital Grand Rounds, Montreal, QC, November 14, 2018.

Visiting Professor: Developmental Dysplasia of the Hip. 39th Annual Orthopaedic Symposium, Loma Linda University, California, US, March 3, 2019.

Chair, POSNA: Pediatric Hip Session. Pediatric Orthopaedic Society of North America Annual Meeting, Austin, TX, May 9-12, 2018.

Chair, IPOS: Neuromuscular Session. International Pediatric Orthopaedic Symposium Annual Meeting, Orlando, FL, Nov 27 – Dec 1, 2018.

Chair, Pediatric Orthopaedic Society of India Conference (POSICON) Instructional Course Lecture (ICL): Detection and Early Management of DDH. Screening Practices in DDH. Paediatric Orthopaedic Society of India Conference. Jan 3-6, 2019. Mumbai, India.

Chair, Pediatric Orthopaedic Society of India Conference (POSICON) Instructional Course Lecture (ICL): Research in Orthopaedic Surgery. Study Designs in Surgical Research. Paediatric Orthopaedic Society of India Conference. Jan 3-6, 2019. Mumbai, India.

Schaeffer EK, Clarke N, Kelley S, Williams N, Mulpuri K, IHDI Study Group . Femoral Nerve Palsy in Brace Treatment for Developmental Dysplasia of the Hip: Incidence and utcomes in a Prospective International Cohort. Pediatric Orthopaedic Society of North America Annual Meeting, Austin Texas, May 9-12, 2018. Senior Author

Schaeffer EK, Sankar WN, Kim HKW, Kelley S, Cundy P, Price CT, Clarke N, Wedge JH, Mulpuri K, IHDI Study Group. Inter- and Intraobserver Reliability of the Radiographic Diagnosis of AVN of the Femoral Head in Developmental Dysplasia of the Hip. Pediatric Orthopaedic Society of North America Annual Meeting, Austin Texas, May 9-12, 2018. Senior Author

#### Dr. Mulpuri

Quader N, Schaeffer EK, Mulpuri K, Cooper A, Hodgson A, Abugharbieh R. 3D Ultrasound in the Management of Developmental Dysplasia of the Hip. Pediatric Orthopaedic Society of North America Annual Meeting, Austin Texas, May 9-12, 2018. Contributing Author

Schaeffer EK, Juricic M, Miller S, Wu J, Mulpuri K. Differences in Caregiver Perspective on Quality of Life of Children with Cerebral Palsy. Pediatric Orthopaedic Society of North America Annual Meeting, Austin Texas, May 9-12, 2018. Senior Author

Khlera K, Schaeffer EK, Kodali N, Mulpuri K. Publication Outcomes of POSNA Abstracts: A Comparison of Awarded and Non-awarded Submissions. Pediatric Orthopaedic Society of North America Annual Meeting, Austin Texas, May 9-12, 2018. Senior Author

Quader N, Hodgson A, Mulpuri K, Cooper A, Schaeffer EK, Abugharbieh R. Using 3D Ultrasound to Improve Reliability in Assessing Developmental Dysplasia of the Hip. The 2018 International Meeting of Computer Assisted Orthopedic Surgery Society (CAOS), Beijing-China, June 6-9, 2018. Contributing Author.

Quader N, Hodgson A, Mulpuri K, Cooper A, Schaeffer EK, Abugharbieh R. Improving 3D Ultrasound Scan Adequacy Classification Using a Three-Slice Convolutional Neural Network Architecture. The 2018 International Meeting of Computer Assisted Orthopedic Surgery Society (CAOS), Beijing-China, June 6-9, 2018. Contributing Author

Reilly C, Habib E, Teo T, Schaeffer EK, Carsen S, Mulpuri K. Nonoperative Management of Type II Supracondylar Humerus Fractures in Children: A Prospective Comparative Study. Poster. Canadian Orthopaedic Association Annual Meeting, Victoria British Columbia, June 20-23, 2018. Senior Author

Herrera Soto JA, Schaeffer EK, Mulpuri K, Sankar WN, Williams N, Matheney TH, Upasani VV, IHDI Study Group. The fate of the stubborn hip in bilateral cases where one hip reduces on initial treatment: How many and what to do? Podium. Canadian Orthopaedic Association Annual Meeting, Victoria British Columbia, June 20-23, 2018. Contributing Author

Jones CE, Mulpuri K, Teo T, Wilson D, d'Entremont AG. Hip Cartilage Disease in Adolescents with Healed Legg Calvé Perthes Disease. Poster. Canadian Orthopaedic Association Annual Meeting, Victoria, British Columbia, June 20-23, 2018. Senior Author

#### Dr. Mulpuri

Schaeffer EK, Sankar WN, Mulpuri K, IHDI Study Group. Development of a standardized classification system for the diagnosis of Developmental Dysplasia of the Hip in Infants. Poster. Canadian Orthopaedic Association Annual Meeting, Victoria British Columbia, June 20-23, 2018. Senior Author

Miller S, O'Donnell M, Mulpuri K. The First North American Hip Surveillance Program: Strategies for Successful Enrollment. American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author

Miller S, O'Donnell M, Mulpuri K. Evaluation of Therapists Acceptance and Knowledge of a Provincial Hip Surveillance Program: Pre and Post Implementation Results. American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author

Miller S, Juricic M, Schaeffer EK, Mulpuri K. The Effect of Selective Dorsal Rhizotomy on Hip Displacement in Children with Cerebral Palsy: A Long Term Follow Up Study. American Academy for Cerebral Palsy and Developmental Medicine Annual

Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author Miller S, Habib E, Schaeffer EK, Yang B, Shore B, Mulpuri K. Inter-rater Reliability of the Identification of a 'Gothic Arch' in the Acetabulum of Children with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author

Schaeffer EK, Juricic M, Miller S, Wu J, Mulpuri K. Differences in Caregiver Perspective on Quality of Life of Children with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author

Juricic M, Schaeffer EK, Mulpuri K, Bainbridge L. Parents of Children with Cerebral Palsy: Experiences through Orthopaedic Surgery. American Academy for Cerebral Palsy and Developmental Medicine Annual Meeting, Cincinnati, Ohio, Oct 9-13, 2018. Senior Author

Schaeffer E, Habib E, Teo T, Carsen S, Mulpuri K, Reilly C. Nonoperative Management of Type II Supracondylar Humerus Fractures in Children: A Prospective Comparative Study. . Société Internationale de Chirurgie Orthopédique et de Traumatologie Orthopaedic World Congress, Montreal, Quebec, Oct 10-13, 2018. Senior Author

Dr. Mulpuri	<ul> <li>Schaeffer E, Sankar W, IHDI Group, Mulpuri K. Development of a standardized classification system for the diagnosis of developmental dysplasia of the hip. Société Internationale de Chirurgie Orthopédique et de Traumatologie Orthopaedic World Congress, Montreal, Quebec, Oct 10-13, 2018. SA.</li> <li>Shea K, Burlile J, Taylor I, Mulpuri K, Geng X, Schaeffer E, Habib E, Vagelakos L, Price C. Developmental Dysplasia of the Hip: Care Practices of Orthopaedic Surgeons in North America. American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, Nevada, Mar 12-16, 2019. Contributing Author</li> </ul>
Dr. Miyanji	<ul> <li>Miyanji F, Nasto L, Bastrom T, Sponseller, P, Shah S, Samdani A, Shufflebarger H, Lonner B, Newton P. Assessing Health Related Quality of Life (HRQoL) in Cerebral Palsy (CP) Following Scoliosis Surgery: Is the CPCHILD Measuring what we want? Pediatric Orthopaedic Society of North America Annual Meeting, Austin, USA, May 2018.</li> <li>Miyanji F, Nasto L, Habib E, Simmonds A. Anterior Vertebral Body Tethering for the Treatment of Idiopathic Scoliosis: Feasibility, Outcomes, and Complications. Pediatric Orthopaedic Society of North America Annual Meeting, Austin, USA, May 2018.</li> <li>Bodendorfer BM: Shah SA: Bastrom TP: Lonner BS: Yaszay B: Samdani AF: Miyanji F, Cahill PJ: Sponseller; Betz RR: Clements DH: Lenke LG: Shufflebarger HL: Newton PO, MD. Restoration of Thoracic Kyphosis in Adolescent Idiopathic Scoliosis over a Twenty-Year Period: Are We Cetting Better? International Meeting on Advanced Spine Techniques, Los Angeles USA, July 2018.</li> <li>De Bodman C, Miyanji F, Dayer R. Posterior Minimally Invasive Surgery for Adolescent Idiopathic Scoliosis: Results and Complications in 68 Patients with Minimum 2-year Follow-up. International Meeting on Advanced Spine Techniques, Los Angeles USA, July 2018.</li> <li>James Bennett, MD: Amer F. Samdani, MD: Joshua M. Pahys, MD; Baron S. Lonner, MD: Peter O. Newton, MD; Firoz Miyanji, MD, FRCS(C): Suken A. Shah, MD: Burt Yaszay, MD: Paul D. Sponseller, MD: Patrick J. Cahill, MD. Reoperation in Patients with Cerebral Palsy After Spinal Fusion: Incidence, Reasons, and Impact on HRQoL. Scoliosis Research Society, Bologna Italy. Oct 2018</li> </ul>

#### Dr. Miyanji

Miyanji F, Nasto L, Bastrom T, Sponseller, P, Shah S, Samdani A, Shufflebarger H, Lonner B, Newton P. Assessing Health Related Quality of Life (HRQoL) in Cerebral Palsy (CP) Following Scoliosis Surgery: Is the CPCHILD Measuring what we want? Scoliosis Research Society, Bologna Italy, Oct 2018.

Miyanji F, Pawelek J, Nasto LA, Parent S. A Prospective, Multicenter Analysis of the Efficacy of Anterior Vertebral Body Tethering (AVBT) in the Treatment of Idiopathic Scoliosis – Hibbs Best Clinical Paper Nominee. . Scoliosis Research Society, Bologna Italy, Oct 2018.

Miyanji F, Pawelek J, Nasto LA, Parent S. A Prospective, Multicenter Analysis of the Efficacy of Anterior Vertebral Body Tethering (AVBT) in the Treatment of Idiopathic Scoliosis . Canadian Spine Society, Toronto, Canada, Feb 2019

Miyanji F, Nasto L, Sponsellor P, Marks M, Samdani A, Clements D, Narayannan U, Newton PO. Health-state utility values in cerebral palsy patients following deformity surgery: Are we now ready for cost-utility analysis in this patient population? Canadian Spine Society, Toronto, Canada, Feb 2019.

Miyanji F, Nasto L, , Sponseller, P, Bastrom T, Shah S, Samdani A, Marks M, Yaszay B, Narayanan U, Newton P. Minimal Clinically Important Difference (MCID) for CPCHILD Questionnaire following Scoliosis Surgery in Cerebral Palsy (CP). Pediatric Orthopaedic Society of North America Annual Meeting, Austin, USA, May 2018.

Miyanji F, Reilly C, Shah S, Clements D, Samdani A, Desai S, Lonner B, Shufflebarger H, Betz R, Newton P. The rate and risk of curve progression following skeletal maturity. Pediatric Orthopedic Society of North America Annual Meeting, Austin USA, May 2018.

Burt Yaszay, MD; Carrie Bartley, MA; Paul Sponseller, MD; Patrick Cahill, MD; Suken Shah, MD; Firoz Miyanji, MD, FRCSC; Amer Samdani, MD; Mark Abel, MD; Peter Newton, MD. Major Complications following Surgical Correction of Spine Deformity in 253 Patients with Cerebral Palsy Pediatric Orthopaedic Society of North America Annual Meeting, Austin, USA, May 2018.

Jaysson Brooks, MD; Burt Yaszay, MD; Tracey Bastrom, MA; Carrie Bartley, MA; Paul Sponseller, MD; Suken Shah, MD; Amer Samdani, MD; Patrick Cahill, MD; Firoz Miyanji, MD, FRCSC; Peter Newton, MD. Do all Patients with Cerebral Palsy Require Postoperative Intensive Care Admission After Posterior Spinal Fusion? Pediatric Orthopaedic Society of North America Annual Meeting, Austin, USA, May 2018.

Dr. Miyanji	<ul> <li>Invited Faculty: 5th International Child's Spine Symposium, Orlando Fl, Mar 2019</li> <li>Presentation: Fixation techniques in Pediatric Subaxial Cervical Spine</li> <li>Presentation: Debate: Pars Repair Best Option for L5 Spondylolyis Hands-on Practical Lab Demonstrations</li> <li>Hibbs Clinical Best Paper Session Moderator: Scoliosis Research Society Annual Meeting. Bologna, Italy Oct 2018</li> <li>Invited Faculty: My Worst Complication in Pediatric, Growing Spine and Neuromuscular Surgery and How I treated It. IMAST Annual Meeting, Los Angeles USA, July, 2018</li> <li>Invited Faculty: Sagittal Plane Disorders - Natural History in Pediatric Orthopedics: How Good is the Data we Base our Decisions?; POSNA Annual Meeting Pre-Course, Austin, USA, May 2018</li> </ul>
Dr. Cooper	<ul> <li>2018 Stephen J Tredwell Visiting Professor Education Day, November 9, 2018</li> <li>Visiting Professor: Dr. Haemish Crawford Lecture Title: Management of Limb Deformities HA Coated Pins. Presenter at Vilex education: ORTHEX Hexapod course, St. Mary's Medical Center, November 16-17, 2018</li> <li>Case presentation, Vilex education: ORTHEX hexapod course, November 2018</li> <li>2018 POSNA Pain Management/Opioids Symposia Program. Prescription Opioids and Children: The Best Use to Prevent Misuse, While Bringing Pain to Truce. Austin, Texas. May 9-12, 2018</li> <li>"Pearls and Pitfalls in Paediatric Orthopaedics", St Paul's Emergency Department Grand Rounds, February 14, 2018</li> <li>Eugenio A, Chhina H, Cooper AP. Perceptions and attitudes towards children with orthopaedic devices. Pediatric Orthopaedic Society of North America (POSNA) Annual Symposium. Texas, USA, May 2018.</li> <li>Multicentre Pin Site Infection Study Group, Cooper AP. Multicentre Pin-site study. Pediatric Orthopaedic Society of North America (POSNA) virtual Annual Meeting. 2018.</li> </ul>

#### Dr. Cooper

Lohre R, Aarvold A, Chhina H, Eugenio A, Reilly C, Wilson D, Mulpuri K, Cooper AP. A pilot study to assess dynamic deformation of the femoral head during weight bearing in Perthes disease. Canadian Orthopaedic Association (COA) Annual Meeting, Victoria, Canada, June 2018. (Trainee Presentation)

Gerges M, Eng H, Chhina H, Cooper AP. Assessment of bone age in children – Comparison of three methods. Evidence to Innovation, Annual Trainee Day, BC Children's Hospital, Vancouver, Canada, November 2018

Chhina H, Klassen A, Kopec J, Aggarwal A, Oliffe J, Cooper AP. Impact of lower limb deformities on the health related quality of life of children in India. Evidence to Innovation, Annual Trainee Day, BC Children's Hospital, Vancouver, Canada, November 2018

Lohre R, Aarvold A, Chhina H, Eugenio A, Reilly C, Wilson D, Mulpuri K, Cooper AP. A pilot study to assess dynamic deformation of the femoral head during weight bearing in Perthes disease. Pediatric Orthopaedic Society of North America (POSNA) Annual Symposium. Texas, USA, May 2018. (Trainee Presentation).

Koo W, Chhina H, Cooper A. Intravenous lidocaine reduces postoperative pain and opiate requirements in patients undergoing external fixation. Canadian Orthopaedic Association (COA) Annual Meeting, Victoria, Canada, June 2018.

Eugenio A, Chhina H, Cooper A. Perceptions and attitudes towards children with orthopaedic devices. LLRS 27th Annual Scientific Meeting, California, USA, July 2018. Presenter: Anthony Cooper (Trainee Presentation)

Lohre R, Aarvold A, Chhina H, Eugenio A, Reilly C, Wilson D, Mulpuri K, Cooper AP. A pilot study to assess dynamic deformation of the femoral head during weight bearing in Perthes disease. LLRS 27th Annual Scientific Meeting, California, USA, July 2018. Presenter: Anthony Cooper (Trainee Presentation)

Sidhu P, Smith J, Chhina H, McMutcheon V, Pike I, Cooper A. Paediatric elbow fractures from a child's viewpoint: does public playground equipment meet the safety standard? Evidence to Innovation, Annual Trainee Day, BC Children's Hospital, Vancouver, Canada, November 2018. Presenter: Anthony Cooper. (Trainee Presentation)

# **Dr. Leveille** Podium Presentation - Can pediatric tourniquet practice and guidelines be improved using personalized pressures?", Canadian Orthopaedic Association Annual Meeting, June 2018

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
International Hip Dysplasia Institute (IHDI)	Prospective observational cohort study of children with hips dislocated at rest		\$300,000	2014- 2019	K Mulpuri	J Purtzki
BCCH Research Institute Investigator Establishment Award	Pediatric orthopaedic hip research program		\$50,000	2015- 2020	K Mulpuri	J Purtzki
Canadian Institute of Health Research	Advanced MR Imaging of Perthes Disease to Improve Treatment	С	\$450,000	2019- 2023	K Mulpuri	D Wilson, A Cooper, D Rosenbaum, E Schaeffer
Pediatric Orthopaedic Society of North America	A prospective, international hip dysplasia registry with follow-up to skeletal maturity: An analysis of risk	C	\$150,000	2017- 2019	K Mulpuri	E Schaeffer C Price T Matheney N Williams J Herrera-Soto W Sankar V Upasani S Kelley A Aarvold E Dodwell L Donnan A Aroojis
Clinical Research Capacity Building Award	Pediatric Orthopaedic Hip Research/Imaging Research Unit		\$125,000 (for five years)	2014- 2019	K Mulpuri	CW Reilly, D Wilson, H MacDonald, A d'Entremont, A Cooper

NAL 2018-2019

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
BCCH Research Institute Investigator Establishment Award	Pediatric orthopaedic hip research program		\$250,000	2015- 2020	K Mulpuri	
Child and Family Research Institute	Evidence to Innovation	NC	\$8400	2015- 2018	K Mulpuri I Pike	
Pediatric Orthopaedic Society of North America	A prospective, international hip dysplasia registry with follow-up to skeletal maturity: An analysis of risk factors, screening practices and treatment outcomes	C	\$150,000	2017- 2019	K Mulpuri	E Schaeffer C Price T Matheney N Williams J Herrera-Soto W Sankar V Upasani S Kelley A Aarvold E Dodwell L Donnan A Aroojis
Canadian Orthopaedic Foundation	A prospective, international hip dysplasia registry with follow-up to skeletal maturity: An analysis of risk factors, screening practices and treatment outcomes	C	\$30,000	2018	K Mulpuri	
Harms Study Group Foundation	Adolescent Idiopathic Scoliosis Database Registry	C NC	\$35,000	2018	F Miyanji	CW Reilly

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
Harms Study Group Foundation	Prospective Study of Scoliosis in Children with Cerebral Palsy	NC	\$30,000	2018	F Miyanji	CW Reilly
CFRI IGAP	Pediatric Limb Reconstruction	С	\$54,000	2016- 2021	A Cooper	
Canadian Orthopaedic Association: Canadian Orthopaedic Research Legacy	Development of a Patient Reported Quality of Life Questionnaire for Children with Lower Limb Deformities	С	\$20,000 (for two years)	2017 - 2019		Dr. Jacek Kopec, Dr. Anne Klassen
Rare Disease Foundation	Congenital Pseudarthrosis of Tibia - Exome Sequencing and Matching Model Organism	С	\$3500	2017 - 2018	A Cooper	C Van Karnebeek
Rare Disease Foundation	A Prospective Study To Assess Dynamic Deformation Of The Femoral Head During Weight Bearing In Perthes Disease	С	\$3500	2017 - 2018	A Cooper	K Mulpuri, D Wilson, CW Reilly
Rare Disease Foundation	Natural History of Morquio B disease – Planning Grant for protocol development for orthopaedic outcomes	C t	\$3500	2017 - 2018	A Cooper	S Stockler
Vilex Research Grant	Limb Lengthening and Reconstruction Program	NC	\$50,000	2018- 2019	A Cooper	
Evidence to Innovation Research Theme	A Pilot Study To Assess Dynamic Deformation Of The Femoral Head During Weight Bearing In Perthes Disease	С	\$8250	2018- 2019	A Cooper	K Mulpuri, D Wilson, CW Reilly

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
POSNA Research Grant - St. Giles Young Investigator Award	PA Prospective Study To Assess Dynamic Deformation Of The Femoral Head During Weight Bearing In Perthes Disease	с	\$30,000	2018 -2019	A Cooper	K Mulpuri, D Wilson, CW Reilly, R Lohre
Rare Disease Foundation	International registry for congenital pseudarthrosis of the tibia	С	\$5, 000	2019- 2020	A Cooper	B Joseph, H Shah, R Liu, C lobst, D Podeszwa, T Nunn, R Hamdy, J Fernandes, J Flanagan, L Reid Nichols, M Thacker, W Mackenzie, S Sabharwaal
BC Children's Hospital Foundation	Limb Lengthening Research Program	С	\$160, 000	2019- 2022	A Cooper	
Rare Disease Foundation	Exome Sequencing in Congenital Pseudarthrosis of Tibia	С	\$5, 000	2019- 2020	A Cooper	
BCCH Research Institute	Risk Factors and Characteristics Associated with Late- presenting Pediatric Anterior Cruciate Ligament Injuries	С	\$15,000 (over 3 years)	2018- 2021	L Leveille	Chris Reilly
Canadian Institutes of Health Research (CIHR)	Simple Bone Cyst in Kids	С	\$1,000 (per subject) Total CIHR funding: \$968,081	2014 -2018	JG Wright	AS Doria, S Hopyan, J Stimec, P Babyn Collaborator/Site Pl: A Cooper
Canadian Institutes of Health Research (CIHR)	Outcome of hip interventions for children with cerebral palsy – An international multi- center prospective comparative cohort study	С	\$520,000	2014- 2019	U Narayanan	K Mulpuri P Selber R Hamdy

#### GRANTING \$/YEAR YEAR ΡI CO-PI TITLE COMP AGENCY Outcome of hip U Narayanan K Mulpuri Canadian Institutes С \$520,000 2014of Health Research interventions for 2019 P Selber (CIHR) children with cerebral R Hamdy palsy – An international multicenter prospective comparative cohort study The University of Child-Sized 04/2018 S Amed I Pike С \$60,000 British Columbia, Knowledge K Mulpuri to Faculty of Medicine Translation 04/2019 S Glegg Strategic Investment J Robillard Fund (SIF) E Portales-Casamar L Masse M Brussoni J Mah J Jacob **R** Livingston

J Morgan

### **COMMITTEE PARTICIPATION**

Dr. Reilly	<ul> <li>BCCH Department of Paediatric Orthopaedic Surgery, Department Head</li> <li>UBC Department of Orthopaedics, Faculty Advisory Committee</li> <li>UBC Department of Orthopaedics, Othopaedic Academic Council</li> </ul>
	<ul> <li>Committee</li> <li>UBC Department of Orthopaedics, MSc Thesis Committee</li> <li>UBC Department of Orthopaedics, Resident Program Committee</li> <li>UBC Department of Orthopaedics, Competency of Care Committee</li> <li>Chair Department of Orthopaedics Ad Hoc Department Head Selection Committee 2019- 2020</li> <li>Member, Faculty of Medicine, Orthopaedic Department Head</li> </ul>
	<ul> <li>Selection Committee 2020 BCCH Orthopaedic Re-design Committee</li> <li>Surgical Cabinet</li> <li>Surgical Services Advisory Committee (SSAC)</li> <li>The Department of Pediatric Surgery Surgical Cabinet</li> <li>Department Heads, Division Heads and Senior Medical Directors Committee</li> <li>CST Design Work for Ambulatory</li> <li>SSC Project TCON (Complex Orthopaedic) Committee</li> <li>Ambulatory Leadership Committee</li> </ul>

#### • Physician Leadership Program Dr. Reilly Panel Member, Privileging Dictionary Refresh Program, Ortho Surgery Ortho Trauma VAT • Pediatric Orthopaedic Society of North America Association of Surgical Educators • American Academy of Orthopaedic Surgeons Canadian Orthopaedic Association Scoliosis Research Society • International Pediatric Orthopaedic Think Tank British Columbia Medical Association Canadian Medical Association British Columbia Orthopaedic Association • Journal of Pediatric Orthopaedics, Pediatric Society of • North America. Reviewer • Child and Family Research Institute, Member • Centre for Hip Health, Member Merit & PSA Committee, UBC Department of Orthopaedics, Member Muscular Diseases Clinic, BCCH, Consultant Dr. Alvarez Child and Family Health Research Institute, Senior Associate, Clinical Scientist • Sunny Hill Gait Lab, Medical Co-Director • Trauma Division Committee, Division of Paediatric Orthopaedics, UBC • Multiple Hereditary Exostoses (MHE) Scientific Advisory Board, Member Anatomy Working Group, Canadian Botulinum Toxin Conference (CBTC), Member • Steering Committee, Canadian Botulinum Toxin Conference (CBTC), Member • Canadian Medical Association, Member • Canadian Orthopaedic Association, Member • Pediatric Orthopaedic Society of North America, Member • BC College of Physicians and Surgeons, Member • Society of Specialists, Member BC Orthopaedic Association, Member • BC Medical Association, member Journal of Pediatric Orthopaedics, Reviewer Research Director for International Hip Dysplasia Institute Dr. Mulpuri Coordinating Committee Member for the International Perthes Study Group Founding President of Canadian Pediatric Orthopaedic Group • Project Chair for the Medical Allied Staff Engagement Theme Lead for Evidence to Innovation (E2i) of BC Children's Research Institute Secretary for the Canadian Orthopaedic Association Research Director for SCFE Longitudinal International Prospective (SLIP) Registry

### 2018-2019

#### Dr. Mulpuri

Principal Coordinating Investigator of PedORTHO

- Research Committee on Child Restraint Seat Safety
- Medical Staff Association BC Children's Hospital Redevelopment Committee
- Member, BC Children's Hospital Research Institute Research Leadership Council
- Present Chair, Projects, Medical and Allied Staff Engagement Society (MASES)
- Theme Co-Lead, Evidence to Innovation, BC Children's Hospital Research Institute
- Member, Faculty Mentoring Program, BC Children's Hospital Research Institute
- Evidence Informed Care for Children with Cerebral Palsy in British Columbia Advisory Committee
- Global Surgery Outreach
- Medical Advisory Board Chair for I'm a HIPpy Foundation
- Scientific Coordinator for OncoCollect
- BCCH Foundation Honourary Physician Chair
- Co-Founder of I-CAN Autism Network
- Member, Karnataka Medical Council
- Member, Karnataka Orthopaedic Association
- Member, Indian Orthopaedic Association
- Member, Paediatric Orthopaedic Society of India
- Member, Asia Pacific Orthopaedic Association
- Member, Doctors of BC
- Member, Canadian Medical Association
- Member, Pediatric Orthopaedic Society of North America
- Member, Canadian Orthopaedic Association
- Member, American Association of Orthopaedic Surgeons
- Member, American Academy for Cerebral Palsy and Developmental Medicine
- Member, Centre for Hip Health and Mobility
- Medical Lead, BC Hip Surveillance Initiative, Improving Care for Children in British Columbia with Cerebral Palsy
- Research Director, International Hip Dysplasia Institute
- Member, International Perthes Study Group
- Member, British Columbia Hip Surveillance Program for Children with Cerebral Palsy, Child Health BC
- Past President/Active Member, Canadian Pediatric Orthopaedic Group
- Member, POSNA Research Committee
- Cerebral Palsy Association of British Columbia Advisory Committee
- Editor, Journal of Pediatric Orthopaedics Evidence-Based Medicine section
- Deputy Editor, Journal of the American Academy of Orthopaedic Surgeons Global Pediatric section
- Reviewer, Journal of Pediatric Orthopaedics
- Reviewer, Spine Journal
- Reviewer, Journal of Clinical Epidemiology
- Reviewer, Western Society for Pediatric Research, Regional Meeting
- Reviewer, Canadian Institutes of Health Research (National)
- Reviewer, Journal of Pediatrics (International)
- Reviewer, Journal of Children's Orthopaedics

Dr. Mulpuri	<ul> <li>Reviewer, Journal of Orthopaedic Surgery</li> <li>Reviewer, Journal of Pediatric Orthopaedics, Part B</li> <li>Reviewer, Clinical Orthopaedics and Related Research</li> <li>Reviewer, Journal of the American Academy of Orthopaedic Surgeons</li> <li>Reviewer, POSNA Grants</li> <li>Reviewer, Postgraduate Medicine</li> <li>Reviewer, Bone and Joint Journal</li> <li>Reviewer, BioMed Central Musculoskeletal Disorders</li> <li>Director for the Vancouver Area Telugu Association</li> <li>International Pediatric Orthopaedic Think Tank</li> </ul>
Dr. Miyanji	<ul> <li>Sept 2018 Chair - Scoliosis Research Society Program Committee</li> <li>Scoliosis Research Society Program Committee</li> <li>Scoliosis Research Society World Wide Committee</li> <li>Reviewer: Journal of Pediatric Orthopedics</li> <li>Fellowship Director - Pediatric Spine Fellowship, UBC Department of Orthopedics</li> <li>QSVI Committee - POSNA</li> <li>Scoliosis Research Society Program Committee</li> <li>Core Member Growing Spine Study Group</li> <li>Scoliosis Research Society Awards and Scholarships Committee</li> <li>Collaborative Spine Research Forum Advisory Council Member</li> <li>Appointed Member POSNA Research Committee</li> <li>Core Member Harms Deformity Study Group</li> <li>Scoliosis Research Society - Active Fellow</li> <li>Canadian Paediatric Spinal Deformity Study Group</li> <li>Paediatric Orthopedic Society of North America - Active Member</li> <li>Canadian Spine Society</li> </ul>
Dr. Ghag	<ul> <li>Canadian Orthopaedic Association</li> <li>American Academy of Orthopaedic Surgeons</li> <li>North American Spine Society</li> <li>Scoliosis Research Society</li> <li>Paediatric Orthopaedic Society of North America</li> <li>College of Physicians &amp; Surgeons of British Columbia</li> <li>Royal College of Physicians and Surgeons of Canada</li> <li>Medical Council of Canada</li> <li>Canadian Medical Protective Association</li> <li>British Columbia Medical Association</li> <li>Scoliosis Research Society Safety &amp; Value Committee</li> <li>Pediatric Orthopaedic Society of North America Quality,</li> <li>Safety &amp; Value Initiative Trauma Committee</li> <li>Pediatric Orthopaedic Society of North America Quality,</li> <li>Safety &amp; Value Initiative Research Committee and Evidence-based Practice Committee</li> </ul>
Dr. Cooper	<ul> <li>BC Trauma Steering Committee, BC Children's Hospital</li> <li>Theme Co-Lead, Clinical Practice, Outcomes &amp; Innovation, Evidence to Innovation (E2i), BC Children's Hospital Research Institute</li> </ul>

Dr. Cooper	<ul> <li>BC Children's Hospital BioBank Biospecimen Advisory Committee</li> <li>BC Children's Hospital Medical Device Reprocessing Department Review (MDRD)</li> <li>Scientific Review Board Member, Canadian Orthopaedic Association (COA) National</li> <li>Canadian Paediatric Orthopaedic Group (CPOG) National, Treasurer</li> <li>Pediatric Orthopaedic Society of North America (POSNA) International, Membership Committee, Member</li> <li>Pediatric Orthopaedic Society of North America (POSNA) International</li> <li>The Bone &amp; Joint Journal - Reviewer</li> <li>UBC Medical Journal, Reviewer</li> </ul>
Dr. Leveille	<ul> <li>BCCW Redevelopment Project, Sunny Hill/BCCH Site Integration Working Group</li> <li>BCCH Orthopaedic Clinic Optimization Working Group</li> <li>BCCH Pain and Comfort Committee Member</li> <li>Gait and Clinical Movement Analysis Society</li> <li>Pediatric Research in Sports Medicine Society</li> <li>Pediatric Orthopedic Society of North America</li> <li>Canadian Orthopaedic Association</li> <li>BC Medical Association</li> <li>Uganda Sustainable Trauma Orthopaedic Program (USTOP)</li> <li>PRISM Motion Analysis Research Interest Group</li> <li>Director Medical Undergraduate Education, Department of Orthopaedics</li> </ul>
Dr. Pirani	<ul> <li>College of Physicians &amp; Surgeons of BC</li> <li>British Columbia Medical Association</li> <li>Canadian Orthopaedic Association</li> <li>Canadian Pediatric Orthopaedic Group</li> <li>American Board of Orthopaedic Surgery</li> <li>American Academy of Orthopaedic Surgeons</li> <li>Avicenna Physicians Society</li> <li>Royal College of Physicians &amp; Surgeons of Canada</li> <li>ASAMI - North America (The Limb Lengthening and Reconstructive Society)</li> <li>The American Orthopaedic Foot and Ankle Society</li> <li>Pediatric Orthopaedic Society of North America</li> <li>Ponseti International Association for the Treatment of Clubfoot, Chair Medical Advisory Board</li> <li>Pediatric Orthopaedic Society of North America, Children's Orthopaedic Society of North America, Children's Orthopaedics in Underdeveloped Regions (COUR) Committee, Member</li> <li>Global HELP International Board</li> <li>The International Clubfoot Study Group, Member</li> <li>End Clubfoot Now RAG (Rotary Action Group), Member</li> </ul>
Alec Black	Gait and clinical Motion Analysis Society, Member

Dr. Reilly	<ul> <li>"Nonoperative Treatment of Type IIA Supracondylar Humerus Fractures Comparing 2 Modalities", Journal of Pediatric Orthopaedics: November/December 2018 - Volume 38 - Issue 10 - p 521-526, Roberts, Lauren, Strelzow, Jason, Schaeffer, Emily K., Reilly, Christopher W., Mulpuri, Kishore</li> </ul>
Dr. Alvarez	<ul> <li>"Botulinum Toxin Type A Versus Placebo for Idiopathic Clubfoot - A Two-Center, Double-Blind, Randomized Controlled Trial" J Bone Joint Surg Am. 2018;100:1589-96 http://dx.doi.org/10.2106/JBJS.17.01652, Christine M. Alvarez, MD, FRCSC, MSc, James G Wright, MD, MPH, FRCSC, Harpreeet Chhina, MSc, Alyssa Howren, BSc, and Peggy Law, MSc</li> </ul>
Dr. Mulpuri	<ul> <li>Mulpuri K, Schaeffer EK, Graham K, Kocher MS, Sanders J, Zaltz I. Evidence-based recommendations for paediatric orthopaedic practice. J Pediatr Orthop. 2018 Apr;38(4): e225-e229. doi: 10.1097/BPO.00000000000876. FA. Impact Factor 2.046</li> <li>Teo T, Schaeffer E, Cooper A, Mulpuri K. Do immediate postoperative radiographs change patient management after fracture fixation? A systematic review. J Orthop Trauma. 2018 May;32(5):211-215. doi: 10.1097/BOT.00000000000001152. SA. Impact Factor 1.777. Cited by 2.</li> <li>Quader N, Hodgson A, Mulpuri K. Cooper A, Schaeffer E, Abugharbieh R. Using 3D Ultrasound to Improve Reliability in Assessing Developmental Dysplasia of the Hip. EasyChair. 2018; 1: 175-178. CA (contributed data acquisition, data analysis, and manuscript preparation).</li> <li>Phillips L, Carsen S, Vasireddi A, Mulpuri K. Use of patient-reported outcome measures in pediatric orthopaedic literature. J Pediatr Orthop. 2018, Sept; 38(8): 393-397. DOI: 10.1097/BPO.0000000000000847. SA. Impact Factor 2.046. Cited by 12.</li> <li>Schaeffer EK, Mulpuri K. Developmental dysplasia of the hip: addressing evidence gaps with a multicentre prospective international study. The Medical Journal of Australia. 2018 May;208(8):359-64. SA. Impact Factor 5.332. Cited by 7.</li> <li>Quader N, Schaeffer EK, Hodgson AK, Abugharbieh R, Mulpuri K. A systematic review and meta-analysis on the reproducibility of ultrasound-based metrics for assessing developmental dysplasia of the hip. J Pediatr Orthop. 2018 Jul;38(6):e305-e311. SA. Impact Factor 2.046. Cited by 2.</li> <li>Teo TL, Schaeffer EK, Mulpuri K. Need for higher quality evidence to determine the utility of postoperative radiography. J Am Acad Orthop Surg Glob Res Rev. 2018 Aug;2(8): e026. doi:10.5435/JAAOSGlobal-D- 18-00026. SA. Impact Factor 2.348</li> <li>Roberts LE, Strelzow J, Schaeffer EK, Reilly CW. Mulpuri K. Nonoperative Treatment of Type IIA Supracondylar Humerus Fractures: Comparing Two Modalities. J Pediatr Orthop. 2018 Nov/Dec;38(10):521-526. SA. I</li></ul>

Dr. Mulpuri	<ul> <li>Aarvold A, Schaeffer EK, Kelley S, Clarke NMP, Herrera-Soto JA, Price CT, Mulpuri K, IHDI Study Group. Management of irreducible hip dislocations in infants with developmental dysplasia of the hip diagnosed below 6 months of age. J Pediatr Orthop. 2018 Jan; 39(1): e39-e43. SA. Impact Factor 2.046. Cited by 1.</li> <li>Schaeffer EK, Lubicky J, Mulpuri K. AAOS Appropriate Use Criteria: The management of developmental dysplasia of the hip in infants up to 6 months of age: Intended for use by general pediatricians and referring physicians. J Am Acad Orthop Surg. 2018 Apr 15; 27(8): e365- e368. SA. Impact Factor 2.348</li> <li>Sankar WN, Gornitzky AL, Clarke NM, Herrera-Soto JA, Kelley SP, Matheney T, Mulpuri K, Schaeffer EK, Upasani VV, Williams N, Price CT. Closed reduction for developmental dysplasia of the hip: early-term results from a prospective, multicenter cohort. J Pediatr Orthop. 2019 Mar 1;39(3):111-8. CA. Impact Factor 2.046. Cited by 9.</li> <li>Miller SD, Mayson TA, Mulpuri K, O'Donnell ME. Developing a province-wide hip surveillance program for children with cerebral palsy: from evidence to consensus to program implementation: a mini-review. J Pediatr Orthop. 2019 Dec 9; CA. Impact Factor 2.046. [Epub ahead of print]</li> </ul>
Dr. Miyanji	<ul> <li>Jackson, T., Yaszay, B., Sponseller, PD, Newton, PO., Shah, SA, Miyanji, F., Cahill PJ. Factors associated with surgical approach and outcomes in cerebral palsy scoliosis. European Spine Journal Aug 2018, 1-14;</li> <li>Brooks, J., Bastrom, T., Bartley, C., Lonner, B., Shah, S., Miyanji, F., Asghar, J., Newton, P. and Yaszay, B. In Search of the Ever-Elusive Postoperative Shoulder Balance: Is the T2 UIV the Key?*. Spine Deformity 2018, 6(6), pp.707 711.</li> <li>Jackson, T., Yaszay, B., Pahys, J., Singla, A., Miyanji, F., Shah, S., Sponseller, P., Newton, P., Flynn, J. and Cahill, P. Intraoperative Traction May Be a Viable Alternative to Anterior Surgery in Cerebral Palsy Scoliosis ≥100</li> <li>Degrees. Journal of Pediatric Orthopaedics, 2018; 38(5), pp.e278-e284.</li> <li>Miyanji, F., Nasto, L., Bastrom, T., Samdani, A., Yaszay, B., Clements, D., Shah, S., Lonner, B., Betz, R., Shufflebarger, H. and Newton, P. A Detailed Comparative Analysis of Anterior Versus Posterior Approach to</li> <li>Lenke 5C Curves. Spine 2018 43(5), pp.E285-E291.</li> <li>Miyanji F. Greer B, Desai S, Choi J, Mok J. Nitikman M, Morrison A. Improving quality and safety in pediatric spine surgery: the team approach. The Bone and Joint Journal. Apr 2018;100-B(4):493-498.</li> <li>Miyanji F. Nasto L, Sponseller P, Shah S, Samdani A, Lonner B, Yaszay B, Clements D, Narayanan U. Newton P. Assessing the risk/benefit ratio of surgery in CP: is surgery worth it? J Bone Joint Surg Am. Apr 2018:100(7):556-563</li> <li>Jackson T, Yaszay B, Sponseller PD. Newton PO, Shah SA, Miyanji F, Cahill PJ; Harms Study Group. Factors associated with surgical approach and outcomes in cerebral palsy scoliosis. Eur Spine J. 2019 Mar:28(3):567-580. doi: 10.1007/s00586-018-5745-3. Epub 2018 Aug 24.</li> </ul>

#### 2018-2019

#### Dr. Mivanii

Dr. Miyanji	<ul> <li>Brooks JT, Bastrom TP, Bartley CE, Lonner BS, Shah SA, Miyanji F, Asghar J, Newton PO, Yaszay B; Harms Study Group. In Search of the Ever-Elusive Postoperative Shoulder Balance: Is the T2 UIV the Key? Spine Deform. 2018 Nov - Dec;6(6):707-711. doi: 10.1016/j.jspd.2018.03.010.</li> <li>Brooks JT, Yaszay B, Bartley CE, Bastrom TP, Sponseller PD, Shah SA, Samdani A, Cahill PJ, Miyanji F, Newton PO; Harms Study Group. Do All Patients With Cerebral Palsy Require Postoperative Intensive Care Admission After Spinal Fusion? Spine Deform. 2019 Jan;7(1):112-117. doi: 10.1016/j.jspd.2018.06.003.</li> <li>Lonner BS, Ren Y, Bess S, Kelly M, Kim HJ, Yaszay B, Lafage V, Marks M, Miyanji F, Shaffrey CI, Newton PO. Surgery for the Adolescent Idiopathic Scoliosis Patients After Skeletal Maturity: Early Versus Late Surgery. Spine Deform. 2019 Jan;7(1):84-92. doi: 10.1016/j.jspd.2018.05.012</li> <li>Bastrom TP, Yaszay B, Shah SA, Miyanji F, Lonner BS, Kelly MP, Samdani A, Asghar J, Newton PO. Major Complications at Two Years After Surgery Impact SRS Scores for Adolescent Idiopathic Scoliosis Patients. 2019 Jan;7(1):93-99. doi: 10.1016/j.jspd.2018.05.009</li> <li>Yaszay B, Jankowski PP, Bastrom TP, Lonner B, Betz R, Shah S, Asghar J, Miyanji F, Samdani A, Newton PO. Progressive decline in pulmonary function 5 years post-operatively in patients who underwent anterior instrumentation for surgical correction of adolescent idiopathic scoliosis. Eur Spine J. 2019 Feb 23. doi: 10.1007/s00586-019-05923-4. [Epub ahead of print]</li> <li>Talathi NS, Flynn JM, Pahys JM, Samdani AF, Yaszay B, Lonner BS, Miyanji F, Shah SA, Cahill PJ. The Effect of the Level of Training of the First Assistant on the Outcomes of Adolescent Idiopathic Scoliosis Surgery. J Bone Joint Surg Am. 2019 Mar 20;101(6):e23. doi: 10.2106/JBJS.18.00018.</li> </ul>
Dr. Cooper	<ul> <li>Archer L, Dobbe A, Chhina H, García HV, Cooper AP. Inter- and intraobserver reliability of the pixel value ratio, Ru Li's and Donnan's classification of regenerate quality in pediatric limb lengthening. J Limb Lengthening Reconstr. 2018 May 3;4(1)26-33. (Trainee Publication)</li> <li>Teo T, Schaeffer E, Cooper AP, Mulpuri K. Do immediate postoperative radiographs change patient management after fracture fixation? A systematic review. J Ortho Trauma. 2018 May;32(5)211-15. PMID: 29521686 Impact Factor: 1.826</li> <li>Campbell T, Chen C, Chhina H, Chahal R, Cooper AP, Elliott A. Support, information and integration of genetics for children with congenital lower limb deficiencies in British Columbia, Canada. Paediatrics &amp; Child Health. 2019 Feb 12;24(6):395-401. PMID: 31528111. Impact Factor 1.059</li> </ul>

Paserin O, Mulpuri K, Cooper AP, Hodgson AJ,Garbi R. Real time RNN based 3D ultrasound scan adequacy for developmental dysplasia of the hip. Granada, Spain. MICCAI 2018. September 16-20 2018. (Trainee Publication)

#### 2018-2019

Dr. Leveille	<ul> <li>Davies K, Leveille L, Alvarez C. Instrumented Gait Analysis in Idiopathic Toe Walking. In: Müller B, Wolf S. Handbook of Human Motion, Springer International Publishing; 2018</li> <li>Mendes Da Costa T, Leveille L, Rosenbaum D. "Quads or Quins? An unexpected cause of atraumatic restricted knee flexion in children." Pediatric Radiology. In Print.</li> </ul>	
Dr. Pirani	<ul> <li>Ansar A, Rahman A, Romero L, Haider M, Rahman M, Moinuddin Md, Siddique Md, Mamun Md, Mazumder T, Pirani S, Mathias R, El Arifeen S, Hoque E. Systematic review and meta-analysis of global birth prevalence of clubfoot: a study protocol. BMJ Open. 2018:8:e019246.</li> </ul>	

#### **INITIATIVES IN PROGRESS**

Dr. Reilly	<ul> <li>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 almost completed</li> <li>Mental Health Disturbance in Adolescents following Acute Knee Injury (J Douglas) - protocol development</li> <li>Harms Study Group - Scheuermann's Kyphosis - data collection ongoing</li> <li>Harms Study Group - AlS Database - data collection ongoing</li> <li>Harms Study Group - AlS 2 year post-operative motion - data collection ongoing</li> <li>Harms Study Group - Cerebral Palsy and Scoliosis - ethics approval received; contract negotiations underway with UBC and Harms Study Group</li> <li>Adductor Canal Block in ACL reconstruction</li> <li>Quadricep reconstruction in the management of habitual patellar instability</li> <li>Management of Type 2 supracondylar fractures.</li> </ul>
Dr. Alvarez	<ul> <li><u>Clubfoot</u></li> <li>Fourteen year clinical outcome of children with idiopathic clubfoot treated with manipulation, casting and adjuvant Botulinum A toxin. Proposed venue: Journal of Bone and Joint Surgery (90% completed, data collected and preparing the manuscript)</li> <li>Case Report: Peroneal Nerve Palsy In Clubfoot Population(Data collected and preparing manuscript)</li> <li>A Double-Blind, Randomized Control Trial Comparing Botulinum A Toxin and Placebo in the Treatment of Idiopathic Clubfoot (multicentre trial). Started in 2006, finished data collection.</li> </ul>

Dr. Alvarez	<ul> <li>Genetic Studies of Clubfoot (CTEV) is a collaborative project with University of Houston Texas to explore the genetic causes of clubfoot which is in progress since 2005 (Ongoing data analysis).</li> <li>Pedobarographic (Tekscan) analysis of idiopathic clubfeet treated with manipulation, casting, and Botox. (Ongoing data analysis)</li> <li>Plantar pressure (EMED) of idiopathic clubfeet treated by the manipulation, casting and Botox (MCB) method. (data collected and analysed, manuscript preparation underway).</li> <li><u>Hereditary Multiple Exostoses</u></li> <li>Disease specific questionnaire for Hereditary Multiple Exostoses in Families (Manuscript preparation underway).</li> <li>The First Clinical Instance of Hereditary Multiple Exostoses in Families (manuscript preparation underway).</li> <li>Development of a HME orthopedic severity score (manuscript being submitted).</li> <li>Intra-familial variability of Orthopaedic Severity in individuals with Multiple Hereditary Exostoses (ongoing data collection)</li> <li><u>Gait</u></li> <li>Gait analysis of clubfoot patients treated with manipulations, casts and Botox (ongoing data collection/analysis)</li> <li>Crouch Gait in children with Cerebral Palsy (ongoing data collection)</li> </ul>
Dr. Mulpuri	<ul> <li>Mulpuri K. The natural history of Perthes disease in British Columbia in comparison to India. Manuscript in preparation – to be submitted to Pediatric Orthopaedic Society of India.</li> <li>Mulpuri K, Devsi J, Doan Q. Caregiver perspective on the participation of their children in long-term clinical research for acute care patients. Manuscript in preparation/data analysis in progress.</li> <li>d'Entremont AG, Wilson DR, Mulpuri K. Accuracy of deformity measurement in slipped capital femoral epiphysis: a geometrical modeling study. Manuscript in preparation/data analysis in progress.</li> <li>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 analysis in progress.</li> <li>d'Entremont AG, Cooper AP, Mulpuri K. The degree of deformity in slipped capital femoral epiphysis at which point the slip is too severe to pin: A computed tomography simulated model. Data analysis in progress.</li> <li>McKay HA, Boyd S, Mulpuri K, Naylor PJ, Khan K, Li L, Rhodes R, Macdonald H. An investigation into risk taking behaviour, bone microstructure, and fracture between the sexes: What underpins fracture in boys compared to girls during growth? Data collection/analysis in progress.</li> <li>Mulpuri K, Beauchamp R, Alvarez C. Functional outcomes following orthopaedic surgery based on gait laboratory versus observational gait analysis in ambulatory children with cerebral palsy: A multiccentre pilot randomized control trial. Data collection/analysis in progress.</li> </ul>

_		
Dr.	Mul	puri

• d'Entremont AG, Wilson DR, Mulpuri K. CT measures of femoral head sphericity in healed Perthes patients using Statistical Shape Modelling and Sphericity Index. Data collection/analysis in progress.

- Chhina HK, Klassen AF, Kopec J, Mulpuri K, Cooper AP. Development of a quality of life instrument for children with lower limb deformities. Data collection in progress.
- Mulpuri K, Miller SD. Health related quality of life in children with cerebral palsy undergoing surgery for dislocating hips. Data collection in progress.
- Mulpuri K, Reilly C. Quality of referrals sent to pediatric orthopedic clinics. Data collection in progress.
- Miyanji F, Mulpuri K, Reilly C. The use of Dermabond vs. standard staple for wound closure in children with neuromuscular scoliosis undergoing spinal deformity correction surgery: A phase II study. Recruitment in progress.
- Miyanji F, Mulpuri K, Reilly C, Poskitt, K. Diffusion MRI as a prognostic tool in growth plate injuries: A pilot study to assess feasibility. Recruitment in progress.
- Mulpuri K, Reilly CW, Tredwell SJ. Management of displaced supracondylar fractures of the humerus using lateral versus crossed K wires: A prospective randomized clinical trial. Recruitment in progress.
- Reilly CW, Mulpuri K, Cooper A, Carsen S. Operative versus nonoperative treatment of Gartland Type IIA supracondylar humeral fractures: A prospective study. Recruitment in progress.
- Mulpuri K, Miyanji F, Reilly C, Doan Q. Splinting versus above elbow casting for Type I supracondylar fractures of the humerus in children: A randomized controlled trial. Recruitment in progress
- Mulpuri K, Davidson D. Validation and reliability testing of the Western Ontario and McMaster Osteoarthritis Scale (WOMAC) hip score in children and adolescents with Perthes disease. Recruitment in progress.
- Mulpuri K, Miyanji F, Reilly CW. A clinical prediction model for growth arrest in pediatric physeal fractures. Recruitment in progress.
- Mulpuri K, Mubarak S, Matheney T, Kelley S, Castaneda P, Foster B, Clarke N, Price C. Prospective observational cohort study of children with hips dislocated at rest. Recruitment in progress.
- Mulpuri K, Abugharbieh R, Hodgson AJ, Quader N. Automatic characterization of the neonatal hip using ultrasound imaging. Recruitment in progress.
- Narayanan U, Mulpuri K, Selber P, Hamdy R. Outcomes of hip interventions for children with cerebral palsy – An international multicentre prospective comparative cohort study. Recruitment in progress.
- Skarsgard ED, Reilly C, Mulpuri K, Innis SM, Gandhi S. Nutritional status of pre-operative surgical patients: Prevalence of malnutrition and impact on surgical outcomes. Recruitment in progress.
- Cooper AP, Mulpuri K, Reilly CW. Simple bone cysts in kids (SBoCK). Recruitment in progress.
- Cooper AP, Mulpuri K, Reilly CW. Observational study of children with limb problems. Recruitment in progress.

Dr. Mulpuri	<ul> <li>d'Entremont AG, Wilson DR, Hargreaves B, Mulpuri K. MR measures of mechanical and cartilage health outcomes in Perthes disease - TIrho and morphology. Recruitment in progress.</li> <li>Mulpuri K, International Perthes Study Group. A prospective, multicentre, surgeon controlled non-randomized study comparing 6 weeks vs 6 months of postoperative non-weight bearing (NWB) in patients treated with a surgical containment procedure with the onset of Legg-Calvé-Perthes disease between 8 and 11 years of age. Recruitment in progress.</li> <li>Juricic M, Mulpuri K, Bainbridge L. Children with CP across GMFCS levels requiring orthopaedic surgery: The lived experiences of parents. Recruitment in progress.</li> <li>Schaeffer EK, Pathy R, Mulpuri K. Do infants with risk factors for developmental dysplasia of the hip require further radiographic follow-up after a normal clinical examination and ultrasound? A retrospective chart review. Data collection in progress.</li> <li>Ho Y, Schaeffer EK, Mulpuri K, Child reported versus parent reported in Activities Scale for Kids -Performance in pediatric orthopaedics. Recruitment in progress.</li> <li>Mammen C, Morrison A, Mulpuri K, Reilly C. Acute Kidney Injury in children following major orthopaedic surgery: A prospective cohort study. Recruitment in progress.</li> <li>Pathy R, Schaeffer EK, Mulpuri K. Prospective observational cohort study of children with a slipped capital femoral epiphysis. Recruitment in progress.</li> </ul>
Dr. Miyanji	<ul> <li>A Prospective, Multi-center Database Registry of Scoliosis Outcomes in AIS (Op and Non-op)</li> <li>A Prospective, Multi-center Database Registry of Scoliosis Outcomes in Cerebral Palsy (Op and Non-op).</li> <li>Non-Fusion Spinal Deformity Correction in Idiopathic Scoliosis- A prospective, multi-center registry study of the Harms Study Group.</li> <li>Retrospective Multi-Center Study of the Outcomes of Anterior Vertebral Body Tethering for Spinal Deformity Correction in Idiopathic Scoliosis</li> <li>Anterior Vertebral Body Tethering Post-Op Motion (AVBT POM)</li> <li>FUTURE: Fusionless Treatment of Idiopathic Scoliosis with the Scoli- Tether System During the Growth Period.</li> <li>Serum Metal Ion Levels Post Multi-Level Spine Surgery.</li> <li>Pediatric Spine Registry (PSSG)</li> <li>Topical Tranexamic Acid in Major Pediatric Spine Deformity Surgery: A Randomized Controlled Trial.</li> <li>Motion Preservation Evaluation of the Spine in Idiopathic Scoliosis Following Anterior Vertebral Body Tethering.</li> <li>AIS Body Image and Psych Study (BI)</li> <li>Effect of an Accelerated Discharge Protocol following Posterior Spinal Fusion for AIS.</li> </ul>

Dr. Ghag	<ul> <li>Intraoperative CT Guided Surgical Navigation in Pediatric Spinal Deformity Correction - a Quantification of Radiographic Dose IRB approval and subsequent data acquisition (25% complete)</li> <li>Effect of Baseline Blood Pressure on Intraoperative Neuromonitoring in Adolescent Idiopathic Scoliosis Correction Surgery - IRB approval and subsequent data acquisition (25% complete)</li> </ul>
Dr. Cooper	<ul> <li>Development of a Quality of Life Instrument for Children with Lower Limb Deformities. Qualitative phase finished / ongoing cognitive debriefing interviews (70% complete).</li> <li>Observational Study of Children with Limb Problems (Limb Deformity Database). Recruitment in progress (296 patients recruited. recruitment ongoing. longitudinal study).</li> <li>Multicentre Pin Site Infection Study. Recruitment in progress at 12 centres / ethics applications in progress at 6 of the centres (150 patients recruited, 50% complete).</li> <li>Next Generation Sequencing in Rare Disorders: Congenital Pseudarthrosis of the Tibia. Recruitment in progress. (6 patients recruited).</li> <li>Simple Bone Cysts in Kids (SBoCK). Recruitment in progress (1 patient recruited).</li> <li>Evaluating the Accuracy of the Multiplier Method for Estimating the Difference in Leg Lengths in Children with Vascular Anomalies. Patient call-back in progress.</li> <li>Preventative Multimodal Analgesia for Children Undergoing Lower Limb Reconstruction with External Fixators: A Prospective Study of Postoperative Pain. Recruitment in progress (22 patients recruited. 73% complete).</li> <li>Paediatric Elbow Fractures from the Child's Viewpoint. Manuscript ready for submission.</li> <li>Weight-bearing MRI in Perthes. Pilot paper published, more data collection in progress (50% complete).</li> <li>Psychological Assessment in Mothers with DDH babies. Manuscript preparation al CPT Registry. Recruitment in progress. (7 patients recruited at BCCH, ethics in progress at other sites. 10% complete)</li> <li>CHILD Network -Multicentre Limb Deformity Registry- Protocol in development</li> <li>Rabbit Femur Project - HA coated pins versus non-HA coated pins. Protocol in development</li> <li>Knee Range of Motion Study. Data analysis in progress.</li> <li>SCH Type 1 RCT. Protocol developed, ethics in progress.</li> <li>SCH Type 1 RCT. Protocol developed, ethics in progress.</li> <li>SCH Type 1 RCT</li></ul>

Dr. Cooper	<ul> <li>Epidemiology of Limb reduction defects - Proposal in progress</li> <li>Efficacy and safety of "sleeper plate" in temporary hemi- epiphysiodesis and the observation of "tethering" Data analysis and manuscript preparation in progress</li> <li>Clinical Outcomes in Pediatric Tibial Lengthening and Deformity Correction: A comparison of the Taylor Spatial Frame with the Orthex ring fixator- Manuscript under review</li> <li>Management of Genu Recurvatum (case series) - Manuscript under review</li> </ul>
Dr. Leveille	<ul> <li>Delay in Diagnosis and Management of Adolescent Anterior Cruciate Ligament Injuries in a Publicly Funded Healthcare System. Manuscript preparation, pending submission to BCMJ.</li> <li>Quads or Quins? An unexpected cause of atraumatic restricted knee flexion in children. Accepted case report in Pediatric Radiology.</li> <li>Changes in Pedobarography, Fluidity of Movement and Range of Motion in Adolescent Patients Undergoing myoActivation for Chronic Pain related to Myofascial Dysfunction. Pilot project initiated and prospective protocol in development.</li> <li>Motion Preservation Evaluation of the Spine in Idiopathic Scoliosis Following Anterior Vertebral Body Tethering: two- and three- dimensional approaches. Protocol in development.</li> <li>Quadriceps realignment and rectus femoris re-routing: description of a novel procedure for proximal extensor mechanism realignment in skeletally immature patients. Data collection/analysis in progress.</li> <li>Split Tibialis Posterior Tendon Transfer (SPOTT) for Equinovarus Foot in Cerebral Palsy. Data collection/analysis in progress.</li> <li>Spsychological Impact of Delayed ACL Reconstruction in Adolescents. Protocol in development.</li> <li>Differences in caregiver perspective on quality of life of children with cerebral palsy. Data collection/analysis in progress.</li> <li>Complications of bilateral, staged, and unilateral hip reconstruction surgery for children with CP. Data collection/analysis in progress.</li> <li>Adductor Canal Block in the Management of Post-op Pain in Pediatric ACL Reconstruction. Development of a Prospective protocol in development.</li> <li>Acute and Persistent Postoperative Developmental Decline in Patients with Cerebral Palsy. Data collection/analysis in progress.</li> <li>Gait analysis outcomes in patients having undergone selective percutaneous myofascial lengthening. Protocol in Development.</li> <li>Hip Displacement in Asymmetric Diplegia – Are all children at GMFCS II and III the same? Data collection/analysis in progress.</li></ul>
Dr. Pirani	<ul> <li>Uganda Sustainable Clubfoot Care Project (USCCP)</li> <li>Sustainable Clubfoot Care in Bangladesh (SCCB)</li> </ul>

## DIVISION OF PEDIATRIC ORTHOPAEDIC SURGERY



### **FACULTY MEMBERS**

## 2019-2020



**Dr. Christopher W. Reilly** Associate Professor, Department Head



Dr. Christine M. Alvarez, Clinical Associate Professor



**Dr. U.K. Kishore Mulpuri,** Associate Professor



**Dr. Firoz Miyanji** Clinical Assistant Professor

Dr. Arvindera Ghag Clinical Instructor



**Dr. Anthony Cooper** Clinical Assistant Professor



**Dr. Lise Leveille** Clinical Instructor

**Dr. Shafique P. Pirani** Clinical Professor

Alec Black Clinical Instructor

### **STAFF MEMBERS**

- Kristen Adams, Administrative Coordinator
- Emily Schaeffer, Research (for Drs. Reilly and Mulpuri)
- Eva Habib, Research (for Dr. Mulpuri)
- Roya Yamini, Research (for Dr. Mulpuri)
- Harpreet Chhina, Research (for Dr. Cooper)
- Michele Stark, MOA to Dr. C. Reilly
- Marilynn Timbrell and Brenda Whitworth, MOAs to Dr. C. Alvarez
- Salima Damani MOA to Dr. K. Mulpuri
- Susan Ramiscal MOA to Dr. A. Cooper
- Valerie Walsh, MOA to Dr. F. Miyanji and Dr. A. Ghag
- Melissa Hart, MOA to Dr. Leveille
- Anna Stonehouse, MOA to Dr. S. Pirani
- Dolly Khanna, Nurse Clinician

- ClinicianAlyssa Robinson, Clinic
  - Nurse

Clinician

• Jennifer Dunlop, Nurse Practitioner

Dolly Khanna, Nurse

• Wendy Krishnaswamy Nurse

- Fidel Brooks, Cast Technician
- Ricardo Botia, Cast Technician
- Shelinah Kabani, Orthopaedic Clinic
- Manjit Bains, Orthopaedic Clinic
- Janis Bui, Orthopaedic Clinic
- Stacey Miller, PT, CP Hip Surveillance
- Nandy Farjardo, PT, Ortho Clinic
- Maria Juricic, PT, Ortho Clinic
- Daphne O'Young, OT, Ortho Clinic

#### **HIGHLIGHTS & ACHIEVEMENTS** 2019-2020

#### **Dr. Reilly**

Stephen J Tredwell Visiting Professor Education Day. Dr. Haemish Crawford, Visiting Professor. BCCH Department of Orthopaedics, Vancouver, BC, November 9, 2018

#### Dr. Miyanji

1. PHSA+ Award for the development and implementation of the Pediatric Spine Surgery Team at BCCH; PHSA Leadership Forum, Vancouver, BC 2. Maurice Duhaimes Visiting Professorship - St. Justine's Hospital, Montreal Canada

#### **TEACHING ACTIVITIES**

## 2019-2020

**FELLOWS SUPERVISED** 

Dr. Christopher Chapman (Canada) Dr. Jonathan Lau (Canada) Dr. Nikki Hooper (New Zealand) Dr. Liam Johnson (Australia) Dr. Madhava Pai (India) Dr. Karthik Asthi (India) Dr. Sultan Aldebeyan (Saudi Arabia) Dr. Sarah Farrell (Australia) Dr. Paul Rushton (United Kingdom) Dr. Juergen Messner (United Kingdom August 1, 2019 – July 31, 2020) Dr. Jessica Page (Canada)

August 1, 2017 - July 31, 2019 August 1, 2018 – July 31, 2019 August 1, 2018 – July 31, 2019 August 1, 2018 – July 31, 2019 April 8 - October 31, 2019 August 1, 2019 - October 31, 2020 August 1, 2019 – July 31, 2020 August 1, 2019 – July 31, 2020 August 1, 2019 - July 31, 2020

February 3 – March 31, 2020

### TEACHING ACTIVITIES CON'T

2019-2020

FELLOW ELECTIVES	Anas Manouzi (Pediatric Emergenc Fellow, UBC) Kate Maki (Pediatric Emergency Fellow, UBC) Steve Leung (Pediatric Emergency Fellow, UBC)		July 1 - 28, 2019
		-	July 29 – August 25, 2019 August 26 – September 22, 2019
RESIDENTS SUPERVISED	Stephen St. George, PGY2 Aly Alsaifan, PGY2 Lindsay Anderson, PGY5	July 1	3 – June 30, 2019 - September 22, 2019 - September 22, 2019
	Christopher Day, PGY5 Colby Finney, PGY2 Akshay Lobo, PGY2 Amar Cheema, PGY5 John Steyn, PGY2	Septe Octob Decer	mber 23 – December 15, 2019 mber 23 – December 15, 2019 per 21 – December 15, 2019 mber 16, 2019 – March 8, 2020 mber 16, 2019 – March 8, 2020
<b>RESIDENT</b> <b>ELECTIVES</b>	Kevin Morash (Dalhousie) Alvin Ip (Pediatric Rehab Resident, UBC) Courtney Bull (MUN)	Au	ly 29 – August 23, 2019 Igust 26 – November 4, 2019 bruary 24 – March 27, 2020
STUDENTS SUPERVISED	Medical Students - 10 BCIT Prosthetic & Orthotics Sh Other Shadowing students - 6		ng Students - 12

#### SCHOLARLY & PROFESSIONAL 2019-2020 ACTIVITIES

Dr. Reilly	2019 Stephen J Tredwell Visiting Professor Education Day, October 25, 2019 Lecture Title: Anterior cruciate ligament reconstruction in young patients, what is our approach?

#### Dr. Mulpuri

Child Health BC Hip Surveillance Program for Children with Cerebral Palsy: Update, Impact, and Next Steps. Child Health BC Steering Committee. Vancouver, Canada, April 26, 2019.

Case-based discussion of surgical management of pediatric cerebral palsy patients. Balaji Institute of Surgery, Research and Rehabilitation for Disabled (BIRRD), Tirupati, India, July 24, 2019.

Surgical Dislocation Approach for Management of Slipped Capital Femoral Epiphysis. Balaji Institute of Surgery, Research and Rehabilitation for Disabled (BIRRD), Tirupati, India, July 25, 2019.

Hip Surveillance Program for Children with Cerebral Palsy. Balaji Institute of Surgery, Research and Rehabilitation for Disabled (BIRRD), Tirupati, India, July 26, 2019.

Invited Lecturer, Femoral Neck Fractures and Hip Dislocations Around the Pediatric Hip. Vijayawada Orthopaedic Club, Vijayawada, India, August 16, 2019.

Femur Neck Fracture and Hip Dislocation in Children. International Fractures in Children Symposium. Jaipur, India, August 24, 2019.

Visiting Professor, Screening for Developmental Dysplasia of the Hip. 5th Jishuitan Hip Summit Forum 2019. Beijing, China, September 5, 2019.

Visiting Professor, Management of the Hip in Cerebral Palsy. 5th Jishuitan Hip Summit Forum 2019. Beijing, China, September 5, 2019.

Visiting Professor, Randomized Controlled Trials in Pediatric Orthopaedics. 5th Jishuitan Hip Summit Forum 2019. Beijing, China, September 6, 2019.

Updates on the International Hip Dysplasia Registry. 5th Jishuitan Hip Summit Forum 2019. Beijing, China, September 6, 2019

Visiting Professor, Treatment of Residual Dysplasia of the Hip. 5th Jishuitan Hip Summit Forum 2019. Beijing, China, September 7, 2019.

#### Dr. Mulpuri

Visiting Professor, Screening for Developmental Dysplasia of the Hip and Early Treatment. Tianjin Children's Hospital, Tianjin, China, November 13, 2019.

Visiting Professor, Research Overview of BC Children's Hospital and Mulpuri Research Lab. Shanghai United Family Hospital, Shanghai, China, November 15, 2019.

Visiting Professor, International Hip Dysplasia Registry 2019 Update. Shanghai Children's Medical Center, Shanghai, China, November 15, 2019.

Visiting Professor, Child Health BC Hip Surveillance Program. Shanghai Children's Medical Center, Shanghai, China, November 15, 2019.

Visiting Professor, Research Overview of BC Children's Hospital and Mulpuri Research Lab. Shandong University Qilu Hospital, Shandong, China, November 18, 2019.

Visiting Professor, International Hip Dysplasia Registry 2019 Update. Shandong Provincial Hospital, Shandong, China, November 18, 2019.

Visiting Professor, Research Overview of BC Children's Hospital and Mulpuri Research Lab. Shandong Provincial Hospital, Shandong, China, November 18, 2019.

Visiting Professor, SCFE- Moderate to Severe Deformities: Standard of Care. Ganga Medical Center Hospital, Coimbatore, India, January 9-10, 2020.

Visiting Professor, Relative Neck Lengthening. Ganga Medical Center Hospital, Coimbatore, India, January 9-10, 2020.

Visiting Professor, Global Burden of Hip Dysplasia - Can We Predict a Trend? 26th Annual Conference of the Paediatric Orthopaedic Society of India, Coimbatore, India, January 11-12, 2020.

Moderator, Lower Limb Cases and Discussion. Canadian Paediatric Orthopaedic Trauma Course, Whistler, BC, Canada, January 23-25, 2020

Co-Chair, CANOSC: Research in Neuro-Orthopaedics for Spasticity. Assessment and Treatment. Canadian Advances in Neuro-Orthopaedics for Spasticity Congress. April 4-6, 2019. UBC, Vancouver, Canada.

#### Dr. Mulpuri

Co-Chair, CANOSC: Research in Neuro-Orthopaedics for Spasticity. Translation of Surgical Knowledge from Pediatric to Adult World: Management of Spasticity. Canadian Advances in Neuro-Orthopaedics for Spasticity Congress. April 4-6, 2019. UBC, Vancouver, Canada.

e-Moderator, POSNA: Hip Paper Presentation Session. Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, NC, May 15 – 18, 2019.

Chair, Neglected Trauma. Canadian Orthopaedic Association – Indian Orthopaedic Association Syposium, Kolkata, India, November 19-24, 2019

Child Health BC Hip Surveillance Program. International Pediatric Orthopaedic Think Tank, Quebec City, QC, September 26, 2019

Miller S, Juricic M, Schaeffer E, Steinbok P, Mulpuri K. The Effect of Selective Dorsal Rhizotomy on Hip Displacement in Children with Cerebral Palsy: A Long Term Follow Up Study. ePoster. Pediatric Orthopaedic Society of North America Meeting, Charlotte, North Carolina, May 15-18, 2019. Senior Author

Shea K, Burlile J, Taylor I, Mulpuri K, Geng X, Schaeffer E, Habib E, Vagelakos L, Price C. Developmental Dysplasia of the Hip: Care Practices of Orthopaedic Surgeons in North America. Poster. Pediatric Orthopaedic Society of North America Meeting, Charlotte, North Carolina, May 15-18, 2019. Contributing Author

Schaeffer E, Bone J, Sankar W, Matheney R, IHDI Study Group, Mulpuri K. Predictors of Avascular Necrosis of the Femoral Head Following Closed or Open Reduction in the Treatment of Developmental Dysplasia of the Hip. Podium.

Pediatric Orthopaedic Society of North America Meeting, Charlotte, North Carolina, May 15-18, 2019. Senior Author

Herrera-Soto J, Schaeffer E, Mulpuri K, Sankar W, Williams N, Matheney T, Upasani V, IHDI Study Group. The Fate of the Stubborn Hip in Bilateral Cases Where One Hip Reduces on Initial Treatment: How Many and What to Do? Poster.

Pediatric Orthopaedic Society of North America Meeting, Charlotte, North Carolina, May 15-18, 2019. Contributing Author

#### Dr. Mulpuri

Pandey P, Quader N, Mulpuri K, Guy P, Garbi R, Hodgson A. Shadow Peak: Accurate Real-time Bone Segmentation for Ultrasound and Developmental Dysplasia of the Hip. 19th Annual Meeting of the International Society for Computer Assisted Orthopaedic Surgery, New York, New York, Jun 19-22, 2019. Contributing Author

Miller S, Habib E, Schaeffer E, Yang B, Shore B, Bone J, Mulpuri K. Inter and Intra-rater reliability of the Identification of a "Gothic Arch" in the Acetabulum of Children with Cerebral Palsy. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author \*COA High Scoring Poster

Schaeffer E, Aroojis A, Shah H, Krishnamoorthy V, Patwardhan S, Sahu C, IHDI Study Group, Mulpuri K. The Importance of Globalization in Prospective Study Groups: Increasing the Relevance of Research on Developmental Dysplasia of the Hip to a Global Patient Population. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author \*COA High Scoring Poster

Frysch C, Schaeffer E, Teo T, Bone J, Mulpuri K. Assessing the Needing for Orthopaedic Follow-Up in the Management of Pediatric Clavicle Fractures: A Retrospective Review. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Maleki A, Schaeffer E, Aliabouni R, Stampe K, Bone J, Mulpuri K. Validation and Reliability Testing of the Western Ontario and McMaster Osteoarthritis Scale Hip Score in Children and Adolescents with Legg-Calvé-Perthes Disease. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Habib E, Krishnaswamy W, Schaeffer E, Mulpuri K. Telehealth & Teleradiology Services at a Tertiary Care Centre. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

#### Dr. Mulpuri

Zakani S, Chapman C, Saule A, Cooper A, Wilson D, Mulpuri K. Computer-Assisted Subcapital Correction Osteotomy in Slipped Capital Femoral Epiphysis Using Individualized Drill Templates. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Chapman C, Zakani S, Mulpuri K. Three-Dimensionally Printed Patient Specific Instrumentation in Corrective Osteotomy of the Femur and Pelvis: A Systematic Review. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Ghoto A, Ahmad D, Schaeffer E, Habib E, Mulpuri K. Quality Assessment of Systematic Reviews Conducted in Pediatric Orthopaedics. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Hooper N, Schaeffer E, Pathy R, Copper A, Reilly C, Mulpuri K. A Clinical Prediction Model for Growth Arrest in Pediatric Physeal Fractures. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Miller S, Juricic M, Schaeffer E, Steinbok P, Bone J, Mulpuri K. The Effect of Selective Dorsal Rhizotomy on Hip Displacement in Children with Cerebral Palsy: A Long Term Follow Up Study. Poster. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Teo R, Schaeffer E, Cerukupalli A, Cooper A, Aroojis A, Sankar W, Upasani V, Carsen S, Mulpuri K, Bone J, Reilly C. Reliability of the Gartland Classification System for Extension-Type Supracondylar Humerus Fractures. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Paserin O, Garbi R, Hodgson A, Cooper A, Mulpuri K. Automatic Evaluation of 3D Femoral Head Coverage Variability for Dynamic Assessment of Hip Dysplasia. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author
### Dr. Mulpuri

Schaeffer E, Bone J, Sankar W, Matheney T, IHDI Study Group, Mulpuri K. Predictors of Avascular Necrosis of the Femoral Head Following Closed or Open Reduction in the Treatment of Developmental Dysplasia of the Hip. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Sanatani G, Habib E, Schaeffer E, Bone J, Mulpuri K. Assessing the Need for Orthopaedic Follow-Up in the Management of Pediatric Femoral Fractures: A Retrospective Review. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Yamini R, Schaeffer E, Bajno L, Krishnaswamy W, Randhawa M, Mulpuri K. Multidisciplinary Clinic for Developmental Dysplasia of the Hip. Podium. International Combined Orthopaedic Research Societies/Canadian Orthopaedic Association Annual Meeting, Montreal, Quebec, Jun 19-22, 2019. Senior Author

Miller S, Lau J, Juricic M, Jivraj B, Steinbok P, Miyanji F, Mulpuri K. The Effect of Selective Dorsal Rhizotomy on Spinal Deformities in Children with Cerebral Palsy: A Long Term Follow Up Study. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author

Couse M, Guimond C, Birch P, Lau E, Liang N, Horvath G, Mulpuri K, To S, van Karnveek C, Lehman A, Friedman J. Expanding the Genetic Spectrum of Cerebral Palsy: Trio Whole Genome Sequencing of 38 Families Identifies Genetic Causes in 18 Different Genes. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. CA.

Miller S, Mulpuri K, O'Donnell M. Investigating Pediatricians' Knowledge and Learning Needs Related to Cerebral Palsy. Poster. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author

Sullivan E, Jones C, Miller S, Lee KM, Park MS, Wilson D, Mulpuri K, D'Entremont A. Effect of positioning error on the Hilgenreiner epiphyseal angle compared to the femoral neck-shaft angle in children with cerebral palsy. Poster. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author

Miller S, O'Donnell M, Mulpuri K. Impact of Hip Surveillance on Surgical Practice: What makes a difference? Poster. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author
Juricic M, Schaeffer E, Miller S, Shore B, Narayanan U, Mulpuri K. CHOP: Center Variability in Baseline Presentation and Management. Poster American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author
Juricic M, Miller S, Salazar MG, Fajardo N, Leveille L, Mulpuri K. Unilateral Hip Reconstruction Surgery for Children with CP. Poster. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author
O'Young D, Magnuson S, Mulpuri K, Zwicker J. Positioning after Hip Containment Surgery: Are Hip Abduction Splints Effective in Maintaining Hip Position? Poster. American Academy of Cerebral Palsy and Developmental Medicine, Anaheim, California, Sep 17-21, 2019. Senior Author
Blake M Bodendorfer, MD; Suken A. Shah, MD; Tracey P. Bastrom, MA; Baron S. Lonner, MD; Burt Yaszay, MD; Amer F. Samdani, MD; Firoz Miyanji, MD, FRCS(C); Patrick J. Cahill, MD; Paul D. Sponseller, MD; Randal R. Betz, MD; David H. H Clements III, MD; Lawrence G. Lenke, MD; Harry L. Shufflebarger, MD; Peter O. Newton, MD. Restoration of Thoracic Kyphosis in Adolescent Idiopathic Scoliosis over a Twenty-Year Period: Are We Getting Better? Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, USA, May 2019.
Shah S, Hughes J, Yaszay B, Bastrom T, Bartley C, Sponseller P, Cahill P, Abel M, Miyanji F, Samdani A, Newton P. Curve Flexibilty is a significant predictor of Surgical Morbidity for patients with Cerebral Palsy and Severe Scoliosis. Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, USA, May 2019.
Fletcher N, Murphy J, Harris H, Goldberg J, Austin T, Miyanji F. Accelerated Discharge Pathway resulted in 50% decrease in Length of Stay, Lower Pain at Discharge, and Earlier Return to School than a Traditional Pathway following Posterior Spinal Fusion for AIS: A Prospective Study. Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, USA, May 2019.

### **Dr. Miyanji** Miyanji F, Paw Analysis of the

Miyanji F, Pawelek J, Nasto LA, Parent S. A Prospective, Multicenter Analysis of the Efficacy of Anterior Vertebral Body Tethering (AVBT) in the Treatment of Idiopathic Scoliosis . Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, USA, May 2019.

Miyanji F. Building OR Teams. Scoliosis Research Society Annual Meeting – Pre-meeting Course. Montreal, Canada, Sept 2019.

Miyanji F, Petcharaporn, Rushton P, Marks M. Vertebral Body Tethering: Truly Motion Preserving or Rather Motion Limiting? Canadian Spine Society, Toronto, Canada, Feb 2020.

Albedeyan S, Rushton P, Ghag R, Sponseller P, Samdani A, Yaszay B, Newton P. Miyanji F. Anterior Release for Idiopathic Scoliosis: is it Necessary for Curve Correction? Canadian Spine Society, Toronto, Canada, Feb 2020.

Rushton P, Albedeyan S, Ghag R, Sponseller P, Samdani A, Yaszay B, Newton P, Miyanji F. What is the effect of intraoperative halofemoral traction on correction of adolescent idiopathic scoliosis (AIS)? Canadian Spine Society, Whistler, Canada, Feb 2020

Miyanji F, Nasto L, Sponsellor P, Marks M, Samdani A, Clements D, Narayannan U, Newton PO. Health-state utility values in cerebral palsy patients following deformity surgery: Are we now ready for cost-utility analysis in this patient population? Pediatric Orthopaedic Society of North America Annual Meeting, Charlotte, USA, May 2019.

Rushton P, Albedeyan S, Ghag R, Sponseller P, Samdani A, Yaszay B, Newton P, Miyanji F. What is the effect of intraoperative halofemoral traction on correction of adolescent idiopathic scoliosis (AIS)? International Meeting of Advanced Spinal Techniques, Athens, 2020.

Invited Faculty: The Canadian Course on Growth Modulation, McGill University, Montreal, QC, Sept 2019

Invited Faculty: ICL: Vertebral Body Tethering: Rationale, Results, and Revisions – State-of-the-Art and Future Directions in Fusionless Scoliosis Correction. AAOS, Orlando, FL Mar 2020.

Invited Faculty: Options of Sacral and Pelvic Fixation. Pediatric Spinal Deformity: A Contemporary and Comprehensive Review, Miami, Feb 2020

Dr. Miyanji	Invited Faculty: VBT - Indications and Surgical Technique. Industry Spotlight. International Pediatric Orthopedic Society Meeting. Orlando FL, Dec 2019.
	Invited Faculty: VBT - Indications and Surgical Technique. The Tether Day. Denver, CO Aug 2019.
	Invited Faculty: VBT - Indications and Surgical Technique. The Tether Day. Denver, CO Nov 2019.
	Invited Faculty: Building OR Teams. Pre-meeting Course. SRS Annual Meeting, Montreal, Canada, Sept 2019
	AIS Session I Moderator: SRS Annual Meeting, Montreal, Canada, Sept 2019.
	Invited Faculty: SRS Webinar: VBT - Indications and Surgical Technique. April 2019.
	Invited Faculty: How I Do Research in a National Healthcare System. Research Symposium. POSNA Annual Meeting, Charlotte, USA, May 2019
Dr. Cooper	Institution of a Standardized Multimodal Pain Pathway Including Intravenous Lidocaine Reduces Post-Operative Pain and Opiate Requirements in Patients Undergoing Application of External Fixation for Limb Deformity Correction. Presenter at UBC Anaesthesia rounds, Vancouver, September 4, 2019
	Evidence, Research, Results: A Paediatric Update. Panellist at COA Webinar, Nov 21, 2019
	Sunnyhill Education Day, Limb Reconstruction Frame, January 2019 Canadian Pediatric Orthopaedic Trauma Course facilitator, January 2020
	Organizer: Canadian Paediatric Orthopaedic Trauma Course, January 23-25, 2020
	Sidhu P, Smith J, Chhina H, McCutcheon V, Pike I, Cooper AP. Paediatric elbow fractures from a child's viewpoint: does public playground equipment meet the safety standard? Canadian Orthopaedic Association (COA) Annual Meeting, Montreal, Canada,
	June 2019. (Trainee Presentation)

Dr. Cooper	Chhina H, Klassen A, Kopec J, Oliffe J, Cooper AP. What matters to children with lower limb deformities; an international qualitative study informing the development of LIMB- Q Kids. Experimental Medicine Research EXPO, Faculty of Medicine, UBC, October 2019. (Trainee presentation).
	Sidhu P, Smith P, Chhina H, Abad J, Lim B, Pike I, Cooper AP. Paediatric elbow fractures: Public playground equipment does not meet the safety standard. Evidence to Innovation, Annual Trainee Day, BC Children's Hospital, Vancouver, Canada, November 1, 2019. (Trainee Presentation).
	Gerges M, Eng H, Chhina H, Cicero M, Bilbily A, Cooper AP. Modernization of bone age: Comparing the accuracy and reliability of artificial intelligence algorithm and short hand bone age to Greulich and Pyle. Evidence to Innovation, Annual Trainee Day, BC Children's Hospital, Vancouver, Canada, November 2019. (Trainee Presentation).
	Peterson V, Sidhu P, Chhina H, Smith J, Pike, I, Cooper A. Risk-taking behaviours and context of paediatric elbow fractures – A pilot study. Canadian Orthopaedic Association (COA) Annual Meeting, Montreal, Canada, June 2019. Presenter: Anthony Cooper.
	Cooper A. Intramedullary gradual lengthening and acute shortening – Where are we now?. Canadian Orthopaedic Association (COA) Paediatric Symposium: Update on deformity, Montreal, Canada, June 2019.
	Chhina H, Klassen A, Kopec J, Oliffe J, Cooper A. What matters to children with lower limb deformities; an international qualitative study informing the development of LIMB-Q Kids. International Society of Quality of Life Research Annual Meeting, San Diego, October 2019. (Trainee presentation)
	Chhina H, Klassen A, Kopec J, Oliffe J, Cooper A. What matters to children with lower limb deformities; an international qualitative study informing the development of LIMB-Q Kids. The Annual Stephen J. Tredwell Visiting Professor Education Day, Department of Orthopaedics, Faculty of Medicine, UBC, October 2019. (Trainee presentation)
Dr. Leveille	Poster Presentation – Delay in Diagnosis and Management of Adolescent Anterior Cruciate Ligament Injuries in a Publicly Funded Healthcare System", Pediatric Research in Sports Medicine Annual Meeting, January 2020

### **Dr. Leveille** Invited Presenter: "Lower Limb Spasticity Management: Gait Analysis and Novel Surgical Techniques" Canadian Advances in Neuro-Orthopedics for Spasticity Congress, Vancouver, BC, April 2019

2019 Stephen J Tredwell Visiting Professor Education Day, October 25, 2019

Lecture Title: Anterior cruciate ligament reconstruction in young patients, what is our approach?

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
International Hip Dysplasia Institute (IHDI)	Prospective observational cohort study of children with hips dislocated at res		\$300,000	2014- 2019	K Mulpuri	
BCCH Research Institute Investigator Establishment Award	Pediatric orthopaedic hip research program		\$50,000	2015- 2020	K Mulpuri	
Canadian Institute of Health Research	Advanced MR Imaging of Perthes Disease to Improve Treatment	С	\$450,000	2019- 2023	K Mulpuri	D Wilson, A Cooper, D Rosenbaum, E Schaeffer
Pediatric Orthopaedic Society of North America	A prospective, international hip dysplasia registry with follow-up to skeletal maturity: An analysis of risk factors, screening practices and treatment outcomes	C	\$150,000	2017- 2019	K Mulpuri	E Schaeffer C Price T Matheney N Williams J Herrera-Soto W Sankar V Upasani S Kelley A Aarvold E Dodwell L Donnan A Aroojis
BCCH Clinical Research Capacity Building Award	Pediatric Orthopaedio Hip Research/Imaging Research Unit		\$125,000 (for five years)	2014- 2019	K Mulpuri	CW Reilly, D Wilson, H MacDonald, A d'Entremont, A Cooper

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
BC Children's Hospital Research Institute Investigator Establishment Award	Pediatric orthopaedic hip research program	С	\$250,000	2015- 2020	K Mulpuri	
Canadian Orthopaedic Foundation	A prospective, international hip dysplasia registry with follow-up to skeletal maturity: An analysis of risk factors, screening practices and treatment outcomes	С	\$30,000	01/2018 - present	- K Mulpuri	
Centre for International Child Health	Centre for International Child Health: China Care Pathway Development and Knowledge Exchange	NC	\$40,000	2019- 2021	K Mulpuri E Schaeffer	R Yamini
BC Children's Hospital Foundation	Digital Innovation Through mHealth	С	\$850,000	2019- present	M Ansermino G Durmont M Gorges K Mulpuri	
Centre for International Child Health	China Care Pathway Development and Knowledge Exchange Project	С	\$40,000	2019- present	K Mulpuri	E Schaeffer
Canadian Institutes of Health Research	Advanced MR Imaging of Perthes Disease to Improve Treatment	С	\$451, 352	2019- 2023	K Mulpuri D Wilson (Co- PI)	A Cooper D Rosenbaum E Schaeffer
AO Documentation and Publishing Foundation, Clinical Investigation and Documentation (AOCID)	PedORTHO: A prospective multicenter observational registry of orthopaedic trauma and health outcomes in skeletally immature children	C	\$1, 360, 000	2019- 2025	K Mulpuri	E Schaeffer A Joeris

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
BC Children's Hospital Foundation	Peterson Fund for Global Hip Health	NC	\$500,000	2020 - 2023	K Mulpuri	E Schaeffer
British Columbia Orthopaedic Association	PedORTHO: A prospective multicenter observational registry of orthopaedic trauma and health outcomes in skeletally immature children	C	\$25,000	2020 - 2025	K Mulpuri	E Schaeffer A Joeris
BC Children's Hospital Research Institute	Evidence to Innovation	NC	\$250,000	2015 - 2020	K Mulpuri I Pike	BC Children's Hospital Research Institute
POSNA Clinical Research Award	Effect of Mix-Metal Instrumentation on Blood Metal Ion Levels in Scoliosis	C	\$30,000	2020	F Miyanji	P. Rasoulnejad
Harms Study Group Foundation	Adolescent Idiopathic Scoliosis Database Registry	NC	\$35,000	2019	F Miyanji	CW Reilly
Harms Study Group Foundation	Prospective Study of Scoliosis in Children with Cerebral Palsy	NC	\$30,000	2019	F Miyanji	CW Reilly
CFRI IGAP	Pediatric Limb Reconstruction	С	\$54,000	2016 - 2021	A Cooper	
Canadian Orthopaedic Association: Canadian Orthopaedic Research Legacy	Development of a Patient Reported Quality of Life Questionnaire for Children with Lower Limb Deformities	С	\$20,000 (for two years)	2017 - 2019	A Cooper	Dr. Jacek Kopec, Dr. Anne Klassen
Vilex Research Grant	Limb Lengthening and Reconstruction Program	NC	\$50, 000	2018- 2019	A Cooper	

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	Ы	CO-PI
Evidence to Innovation Research Theme	A Pilot Study To Assess Dynamic Deformation Of The Femoral Head During Weight Bearing In Perthes Disease	С	\$8,250	2018 -2019	A Cooper	K Mulpuri, D Wilson, CW Rei
BC Children's Hospital Foundation	Limb Lengthening Research Program	С	\$160, 000	2019- 2022	A Cooper	
Rare Disease Foundation	Exome Sequencing in Congenital Pseudarthrosis of Tibia	C	\$5, 000	2019- 2020	A Cooper	
BCCH Research Institute	Risk Factors and Characteristics Associated with Late- presenting Pediatric Anterior Cruciate Ligament Injuries	С	\$15,000 (over 3 years)	2018- 2021	L Leveille	Chris Reilly
Canadian Institutes of Health Research (CIHR)	Outcome of hip interventions for children with cerebral palsy – An international multi- center prospective comparative cohort study	С	\$520,000	2014- 2019	U Narayanan	K Mulpuri P Selber R Hamdy
Canadian Institutes of Health Research	Long-Term Outcomes of Hip Interventions for Children with Cerebral Palsy - An International Multi- Centre Prospective Comparative Cohort Study (CHOP-II)	C	\$822,376	2019 - 2025	U Narayanan	D Fehlings K Graham P Gross R Hamdy K Mulpuri M Park E Pullenayegur B Shore T Theologis

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR PI	CO-PI
The University of British Columbia, Faculty of Medicine Strategic Investment Fund (SIF)	Child-Sized Knowledge Translation	С	\$60,000	04/2018 S Amed to 04/2019	l Pike K Mulpuri S Glegg J Robillard E Portales- Casamar L Masse M Brussoni J Mah J Jacob R Livingston J Morgan

### **COMMITTEE PARTICIPATION**

	<ul> <li>BCCH Department of Paediatric Orthopaedic Surgery, Department Head</li> <li>UBC Department of Orthopaedics, Faculty Advisory Committee</li> <li>UBC Department of Orthopaedics, Orthopaedic Academic Council Committee</li> <li>UBC Department of Orthopaedics, MSc Thesis Committee</li> <li>UBC Department of Orthopaedics, Resident Program Committee</li> <li>UBC Department of Orthopaedics, Competency of Care Committee</li> <li>UBC Department of Orthopaedics Ad Hoc Department Head Selection Committee 2019- 2020</li> <li>Member, Faculty of Medicine, Orthopaedic Department Head Selection Committee 2020 BCCH Orthopaedic Re-design Committee</li> <li>Surgical Cabinet</li> <li>Surgical Services Advisory Committee (SSAC)</li> <li>The Department of Pediatric Surgery Surgical Cabinet</li> <li>Department Heads, Division Heads and Senior Medical Directors Committee</li> <li>CST Design Work for Ambulatory</li> <li>SSC Project TCON (Complex Orthopaedic) Committee</li> <li>Ambulatory Leadership Program</li> <li>Panel Member, Privileging Dictionary Refresh Program, Ortho Surgery</li> <li>Ortho Trauma VAT</li> <li>Pediatric Orthopaedic Surgeons</li> <li>Canadian Orthopaedic Association</li> <li>Scoliosis Research Society</li> <li>International Pediatric Orthopaedic Think Tank</li> <li>British Columbia Medical Association</li> </ul>
--	--

Dr. Reilly	<ul> <li>Canadian Medical Association</li> <li>British Columbia Orthopaedic Association</li> <li>Journal of Pediatric Orthopaedics, Pediatric Society of North America, Reviewer</li> <li>Child and Family Research Institute, Member</li> <li>Centre for Hip Health, Member</li> <li>Merit &amp; PSA Committee, UBC Department of Orthopaedics, Member</li> <li>Muscular Diseases Clinic, BCCH, Consultant</li> </ul>
Dr. Alvarez	<ul> <li>Child and Family Health Research Institute, Senior Associate, Clinical Scientist</li> <li>Sunny Hill Gait Lab, Medical Co-Director</li> <li>Trauma Division Committee, Division of Paediatric Orthopaedics, UBC</li> <li>Multiple Hereditary Exostoses (MHE) Scientific Advisory Board, Member</li> <li>Anatomy Working Group, Canadian Botulinum Toxin Conference (CBTC), Member</li> <li>Steering Committee, Canadian Botulinum Toxin Conference (CBTC), Member</li> <li>Canadian Medical Association, Member</li> <li>Canadian Orthopaedic Association, Member</li> <li>BC College of Physicians and Surgeons, Member</li> <li>Society of Specialists, Member</li> <li>BC Orthopaedic Association, Member</li> <li>BC Medical Association, member</li> <li>BC Medical Association, Member</li> <li>Journal of Pediatric Orthopaedics, Reviewer</li> </ul>
Dr. Mulpuri	<ul> <li>Research Director for International Hip Dysplasia Institute</li> <li>Coordinating Committee Member for the International Perthes Study Group</li> <li>Founding President of Canadian Pediatric Orthopaedic Group</li> <li>Project Chair for the Medical Allied Staff Engagement</li> <li>Theme Lead for Evidence to Innovation (E2i) of BC Children's Research Institute</li> <li>Secretary for the Canadian Orthopaedic Association</li> <li>Research Director for SCFE Longitudinal International Prospective (SLIP) Registry</li> <li>Principal Coordinating Investigator of PedORTHO</li> <li>Research Committee on Child Restraint Seat Safety</li> <li>Medical Staff Association BC Children's Hospital Redevelopment Committee</li> <li>Member, BC Children's Hospital Research Institute Research Leadership Council</li> <li>Present Chair, Projects, Medical and Allied Staff Engagement Society (MASES)</li> <li>Theme Co-Lead, Evidence to Innovation, BC Children's Hospital Research Institute</li> <li>Member, Faculty Mentoring Program, BC Children's Hospital Research Institute</li> </ul>

### 2019-2020

### Dr. Mulpuri

- Evidence Informed Care for Children with Cerebral Palsy in British Columbia Advisory Committee
- Global Surgery Outreach
- Medical Advisory Board Chair for I'm a HIPpy Foundation
- Scientific Coordinator for OncoCollect
- BCCH Foundation Honourary Physician Chair
- Co-Founder of I-CAN Autism Network
- Member, Karnataka Medical Council
- Member, Karnataka Orthopaedic Association
- Member, Indian Orthopaedic Association
- Member, Paediatric Orthopaedic Society of India
- Member, Asia Pacific Orthopaedic Association
- Member, Doctors of BC
- Member, Canadian Medical Association
- Member, Pediatric Orthopaedic Society of North America
- Member, Canadian Orthopaedic Association
- Member, American Association of Orthopaedic Surgeons
- Member, American Academy for Cerebral Palsy and Developmental Medicine
- Member, Centre for Hip Health and Mobility
- Medical Lead, BC Hip Surveillance Initiative, Improving Care for Children in British Columbia with Cerebral Palsy
- Research Director, International Hip Dysplasia Institute
- Member, International Perthes Study Group
- Member, British Columbia Hip Surveillance Program for Children with Cerebral Palsy, Child Health BC
- Past President/Active Member, Canadian Pediatric Orthopaedic Group
- Member, POSNA Research Committee
- Cerebral Palsy Association of British Columbia Advisory Committee
- Editor, Journal of Pediatric Orthopaedics Evidence-Based Medicine section
- Deputy Editor, Journal of the American Academy of Orthopaedic Surgeons Global, Pediatric section
- Reviewer, Journal of Pediatric Orthopaedics
- Reviewer, Spine Journal
- Reviewer, Journal of Clinical Epidemiology
- Reviewer, Western Society for Pediatric Research, Regional Meeting
- Reviewer, Canadian Institutes of Health Research (National)
- Reviewer, Journal of Pediatrics (International)
- Reviewer, Journal of Children's Orthopaedics
- Reviewer, Journal of Orthopaedic Surgery
- Reviewer, Journal of Pediatric Orthopaedics, Part B
- Reviewer, Clinical Orthopaedics and Related Research
- Reviewer, Journal of the American Academy of Orthopaedic Surgeons
- Reviewer, POSNA Grants
- Reviewer, Postgraduate Medicine
- Reviewer, Bone and Joint Journal
- Reviewer, BioMed Central Musculoskeletal Disorders
- Director for the Vancouver Area Telugu Association
- International Pediatric Orthopaedic Think Tank

Dr. Miyanji	<ul> <li>Board Member - Setting Scoliosis Straight Foundation (Harms Study Group)</li> <li>Reviewer - Spinal Deformity Journal</li> <li>AO TK Deformity, Tumour, Fracture Committee</li> <li>Board Member - POSNA</li> <li>Scoliosis Research Society Program Committee</li> <li>Scoliosis Research Society World Wide Committee</li> <li>Reviewer: Journal of Pediatric Orthopedics</li> <li>Fellowship Director - Pediatric Spine Fellowship, UBC Department of Orthopedics</li> <li>QSVI Committee - POSNA</li> <li>Scoliosis Research Society Program Committee</li> <li>Core Member Growing Spine Study Group</li> <li>Scoliosis Research Society Awards and Scholarships Committee</li> <li>Collaborative Spine Research Forum Advisory Council Member</li> <li>Appointed Member POSNA Research Committee</li> <li>Core Member Harms Deformity Study Group</li> <li>Scoliosis Research Society - Active Fellow</li> <li>Canadian Paediatric Spinal Deformity Study Group</li> <li>Paediatric Orthopedic Society of North America - Active Member</li> <li>Canadian Spine Society</li> </ul>
Dr. Ghag	<ul> <li>Canadian Orthopaedic Association</li> <li>American Academy of Orthopaedic Surgeons</li> <li>North American Spine Society</li> <li>Scoliosis Research Society</li> <li>Paediatric Orthopaedic Society of North America</li> <li>College of Physicians &amp; Surgeons of British Columbia</li> <li>Royal College of Physicians and Surgeons of Canada</li> <li>Medical Council of Canada</li> <li>Canadian Medical Protective Association</li> <li>British Columbia Medical Association</li> <li>Scoliosis Research Society Education Committee</li> <li>Scoliosis Research Society of North America Quality, Safety &amp; Value Initiative - Trauma Committee</li> <li>Pediatric Orthopaedic Society of North America Quality, Safety &amp; Value Initiative - Research Committee and Evidence-based Practice Committee</li> </ul>
Dr. Cooper	<ul> <li>BC Trauma Steering Committee, BC Children's Hospital</li> <li>Theme Co-Lead, Clinical Practice, Outcomes &amp; Innovation,</li> <li>Evidence to Innovation (E2i), BC Children's Hospital Research Institute</li> <li>BC Children's Hospital BioBank Biospecimen Advisory Committee</li> <li>BC Children's Hospital Medical Device Reprocessing Department Review (MDRD)</li> <li>Core Curriculum Integration Committee, Leeds University Medical School Regional</li> <li>Scientific Review Board Member, Canadian Orthopaedic Association (COA) National</li> <li>Canadian Paediatric Orthopaedic Group (CPOG) National, Treasurer</li> </ul>

Dr. Cooper	<ul> <li>Pediatric Orthopaedic Society of North America (POSNA) International, Membership Committee, Member, Research Committee</li> <li>Pediatric Orthopaedic Society of North America (POSNA) International</li> <li>Canadian Paediatric Orthopaedic Group (CPOG) Research Committee National</li> <li>The Bone &amp; Joint Journal, Reviewer</li> <li>BMJ Open, Reviewer</li> <li>UBC Medical Journal, Reviewer</li> </ul>
Dr. Leveille	<ul> <li>BCCW Redevelopment Project, Sunny Hill/BCCH Site Integration Working Group</li> <li>BCCH Orthopaedic Clinic Optimization Working Group</li> <li>BCCH Pain and Comfort Committee Member</li> <li>Gait and Clinical Movement Analysis Society</li> <li>Pediatric Research in Sports Medicine Society</li> <li>Pediatric Orthopedic Society of North America</li> <li>Canadian Orthopaedic Association</li> <li>BC Medical Association</li> <li>Uganda Sustainable Trauma Orthopaedic Program (USTOP)</li> <li>PRISM Motion Analysis Research Interest Group</li> <li>Director Medical Undergraduate Education, Department of Orthopaedics</li> </ul>
Dr. Pirani	<ul> <li>College of Physicians &amp; Surgeons of BC</li> <li>British Columbia Medical Association</li> <li>Canadian Orthopaedic Association</li> <li>Canadian Pediatric Orthopaedic Group</li> <li>American Board of Orthopaedic Surgery</li> <li>American Academy of Orthopaedic Surgeons</li> <li>Avicenna Physicians Society</li> <li>Royal College of Physicians &amp; Surgeons of Canada</li> <li>ASAMI - North America (The Limb Lengthening and Reconstructive Society)</li> <li>The American Orthopaedic Society of North America</li> <li>Ponseti International Association for the Treatment of Clubfoot, Chair Medical Advisory Board</li> <li>Pediatric Orthopaedic Society of North America, Children's Orthopaedic Society of Surgeons (COUR) Committee, Member</li> <li>Global HELP International Board</li> <li>The Rotary Club of Burnaby, Member</li> <li>End Clubfoot Now RAG (Rotary Action Group), Member</li> </ul>
Alec Black	Gait and clinical Motion Analysis Society, Member

### **PUBLICATION RECORDS**

Dr. Reilly	<ul> <li>"Asymmetric unilateral vestibular perception in adolescents with idiopathic scoliosis" Journal: Frontiers in Neurology, section Movement Disorders Article type: Original Research, Authors: Emma Jean Woo, Gunter P. Siegmund, Christopher W. Reilly, Jean-Sébastien Blouin, Frontiers of Neurology, Dec 2019</li> <li>"Assessing the reliability of the modified Gartland classification system for extension-type supracondylar humerus fractures", T. L. Teo, K. Schaeffer, E. Habib, A. Cherukupalli, A. P. Cooper, A. Aroojis, W. N. Sankar, V. V. Upasani, S. Carsen, K. Mulpuri, C. Reilly, J Child Orthop Nov 2019;13:1-11</li> </ul>
Dr. Mulpuri	<ul> <li>Miller S, Shore B, Mulpuri K. Hip Surveillance is Important to Children with Cerebral Palsy: Stop Waiting, Start Now. J Am Acad Orthop Surg Clob Res Rev. 2019 Apr 10; 3(4). SA. Impact Factor 2.348</li> <li>Schaeffer EK, Lubicky J, Mulpuri K. AAOS Appropriate Use Criteria: The Management of Developmental Dysplasia of the Hip in Infants up to Six Months of Age: Intended for Use by Orthopaedic Specialists. J Am Acad Orthop Surg. 2019 Apr 15; 27(8): e369-e372. SA. Impact Factor 2.398</li> <li>Shore B, Martinkevich P, Riazi M, Baird E, Encisa C, Willoughby K, Narayanan U: "CHOP Investigative Team. Reliability of Radiographic Assessments of the Hip in Cerebral Palsy. J Pediatr Orthop. 2019 Aug; 39(7): e536-e541. CA (contributed methodology development) Impact Factor 2.046.</li> <li>Striano B, Schaeffer EK, Matheney TH, Upasani VV, Price CT, Mulpuri K, Sankar WN, International Hip Dysplasia Institute. Ultrasound Characteristics of Clinically Dislocated But Reducible Hips with DDH. J Pediatr Orthop. 2019 Oct; 39(9): 453-457. CA Impact Factor 2.046.</li> <li>Masud S, Greenman J, Mulpuri K, Hasan MR, Goldfarb DM, Tilley P, Gadkar VJ, Al-Rawahi CN. Asymptomatic Pharyngeal Carriage of Kingella kingae Among Young Children in Vancouver, British Columbia, Canada. Pediatr Infect Dis J. 2019 Oct; 38(10): 990-993. CA Impact Factor 2.723.</li> <li>Teo TL, Schaeffer EK, Habib E, Cherukupalli A, Cooper AP, Aroojis A, Sankar WN, Upasani VV, Carsen S, Mulpuri K, Reilly C. Assessing the reliability of the modified Gartland classification system for extension-type supracondylar humerus fractures. J Child Orthop. 2019 Dec; 32(6):569-574. DOI:10.1302/1863-2548.13.190005. CA. Impact Factor 1.296.</li> <li>Schaeffer E, Mulpuri K. Anatomy and Physiology of the Pediatric Hip. In: The Paediatric and Adolescent Hip: Essentials and Evidence, 2019</li> </ul>
Dr. Miyanji	<ul> <li>Phillips L, Yaszay B, Bastrom TP, Shah SA, Lonner BS, Miyanji F, Samdani AF, Parent S, Asghar J, Cahill PJ, Newton PO.L3 translation predicts when L3 is not distal enough for an "ideal" result in Lenke 5 curves. Eur Spine J. 2019 Apr 12. doi: 10.1007/s00586-019-05960-z</li> <li>Hollenbeck SM, Yaszay B, Sponseller PD, Bartley CE, Shah SA, Asghar J, Abel MF, Miyanji F, Newton PO. The Pros and Cons of Operating Early Versus Late in the Progression of Cerebral Palsy Scoliosis. Spine Deform. 2019 May;7(3):489-493. doi: 10.1016/j.jspd.2018.09.002</li> </ul>

### **PUBLICATION RECORDS**

Dr. Miyanji	<ul> <li>Howard R, Sponseller P, Shah SA, Miyanji F, Samdani A, Newton P, Yaszay B. Is Performing a Definitive Fusion for Scoliosis in Juvenile Cerebral Palsy Patients a Good Long-term Surgical Option? Spine Deform. 2019 Nov;7(6):1029-1030. doi: 10.1016/j.jspd.2019.09.026. No abstract available.</li> <li>Bachmann KR, Lu E, Novicoff WM, Newton PO, Abel MF, Buckland A, Samdani A, Jain A, Lonner B, Yaszay B, Reilly C, Hedequist D, Clements D, Miyanji F, Shufflebarger H, Flynn J, Asghar J, Thiong JMM, Pahys J, Harms J, Bachmann K, Lenke L, Glotzbecker M, Kelly M, Vitale M, Marks M, Gupta M, Fletcher N, Cahill P, Sponseller P, Gabos P, Newton P, Betz R, Lehman R, George S, Hwang S, Shah S, Errico T, Upasani V; Harms Study Group; Harms Study Group Investigators. The Lumbosacral Takeoff Angle Can Be Used to Predict the Postoperative Lumbar Cobb Angle Following Selective Thoracic Fusion in Patients with Adolescent Idiopathic Scoliosis J Bone Joint Surg Am. 2020 Jan 15;102(2):143-150. doi: 10.2106/JBJS.19.00287</li> </ul>
Dr. Ghag	<ul> <li>Halsey MF, Myung KS, Ghag A, Vitale MG, Newton PO, de Kleuver M. Neurophysiological monitoring of spinal cord function during spinal deformity surgery: 2020 SRS neuromonitoring information statement. Spine Deform. 2020 Aug;8(4):591-596. doi: 10.1007/s43390-020-00140- 2. Epub 2020 May 25.</li> </ul>
Dr. Cooper	<ul> <li>Chhina H, Klassen A, Kopec J, Oliffe J, Cooper AP. International multiphase mixed methods study protocol to develop a patient-reported outcome instrument for children and adolescents with</li> <li>lower limb deformities BMJ Open 2019 May;9:e027079. PMID: 31061048. Impact Factor 2.376 (Trainee Publication)</li> <li>"Assessing the reliability of the modified Gartland classification system for extension-type supracondylar humerus fractures", T. L. Teo, K. Schaeffer, E. Habib, A. Cherukupalli, A. P. Cooper, A. Aroojis, W. N. Sankar, V. V. Upasani, S. Carsen, K. Mulpuri, C. Reilly, J Child Orthop Nov 2019;13:1-11</li> <li>Chhina H, Klassen A, Kopec J, Oliffe J, Cooper A. What matters to children with lower limb deformities; an international qualitative study informing the development of LIMB-Q Kids. Qual Life Res (2019) 28(Suppl 1): 1. (Trainee Publication)</li> <li>Suzuki A, Cooper AP, Fernandes JA. Coxa Vara, In: Alshryda S, Howard J, Huntley J, editors. Paediatric and Adolescent Hip: Essentials and Evidence. Springer, USA: 2019. p. 193-206.</li> </ul>
Dr. Pirani	<ul> <li>Global Orthopaedics: Clubfoot Etiology, Pathoanatomy, Basic Ponseti Technique, and Ponseti in Older Patients. Springer, New York, NY, 2019. Print ISBN 978-1-4614-1577-0, Online ISBN 978-1-4614-1578-7</li> </ul>

Dr. Reilly	<ul> <li>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 almost completed</li> <li>Mental Health Disturbance in Adolescents following Acute Knee Injury (J Douglas) - protocol development</li> <li>Harms Study Group - Scheuermann's Kyphosis - data collection ongoing</li> <li>Harms Study Group - AIS Database - data collection ongoing</li> <li>Harms Study Group - AIS 2 year post-operative motion - data collection ongoing</li> <li>Harms Study Group - Cerebral Palsy and Scoliosis - ethics approval received; contract negotiations underway with UBC and Harms Study Group</li> <li>Adductor Canal Block in ACL reconstruction</li> <li>Quadricep reconstruction in the management of habitual patellar instability</li> <li>Management of Type 2 supracondylar fractures</li> </ul>
Dr. Alvarez	<ul> <li><u>Clubfoot</u> <ul> <li>Fourteen year clinical outcome of children with idiopathic clubfoot treated with manipulation, casting and adjuvant Botulinum A toxin. Proposed venue: Journal of Bone and Joint Surgery (90% completed, data collected and preparing the manuscript)</li> <li>Case Report: Peroneal Nerve Palsy In Clubfoot Population(Data collected and preparing manuscript)</li> </ul> </li> <li><u>Hereditary Multiple Exostoses</u> <ul> <li>Disease specific questionnaire for Hereditary Multiple Exostoses (Ongoing Data collection)</li> <li>The First Clinical Instance of Hereditary Multiple Exostoses in Families (manuscript preparation underway).</li> <li>Development of a HME orthopedic severity score (manuscript being submitted).</li> <li>Intra-familial variability of Orthopaedic Severity in individuals with Multiple Hereditary Exostoses (ongoing data collection)</li> </ul> </li> <li>Cait         <ul> <li>Gait analysis of clubfoot patients treated with manipulations, casts and Botox (ongoing data collection/analysis)</li> </ul> </li> </ul>
Dr. Mulpuri	<ul> <li>Mulpuri K. The natural history of Perthes disease in British Columbia in comparison to India. Manuscript in preparation – to be submitted to Pediatric Orthopaedic Society of India.</li> <li>Mulpuri K, Devsi J, Doan Q. Caregiver perspective on the participation of their children in long-term clinical research for acute care patients. Manuscript in preparation/data analysis in progress.</li> <li>d'Entremont AG, Wilson DR, Mulpuri K. Accuracy of deformity measurement in slipped capital femoral epiphysis: a geometrical modeling study. Manuscript in preparation/data analysis in progress.</li> </ul>

### 2019-2020

### Dr. Mulpuri

- 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 analysis in progress
- d'Entremont AG, Cooper AP, Mulpuri K. The degree of deformity in slipped capital femoral epiphysis at which point the slip is too severe to pin: A computed tomography simulated model. Data analysis in progress.
- McKay HA, Boyd S, Mulpuri K, Naylor PJ, Khan K, Li L, Rhodes R, Macdonald H. An investigation into risk taking behaviour, bone microstructure, and fracture between the sexes: What underpins fracture in boys compared to girls during growth? Data collection/analysis in progress.
- Mulpuri K, Beauchamp R, Alvarez C. Functional outcomes following orthopaedic surgery based on gait laboratory versus observational gait analysis in ambulatory children with cerebral palsy: A multi-centre pilot randomized control trial. Data collection/analysis in progress.
- d'Entremont AG, Wilson DR, Mulpuri K. CT measures of femoral head sphericity in healed Perthes patients using Statistical Shape Modelling and Sphericity Index. Data collection/analysis in progress.
- Chhina HK, Klassen AF, Kopec J, Mulpuri K, Cooper AP. Development of a quality of life instrument for children with lower limb deformities. Data collection in progress.
- Mulpuri K, Miller SD. Health related quality of life in children with cerebral palsy undergoing surgery for dislocating hips. Data collection in progress.
- Mulpuri K, Reilly C. Quality of referrals sent to pediatric orthopedic clinics. Data collection in progress.
- Miyanji F, Mulpuri K, Reilly C. The use of Dermabond vs. standard staple for wound closure in children with neuromuscular scoliosis undergoing spinal deformity correction surgery: A phase II study. Recruitment in progress.
- Miyanji F, Mulpuri K, Reilly C, Poskitt, K. Diffusion MRI as a prognostic tool in growth plate injuries: A pilot study to assess feasibility. Recruitment in progress.
- Mulpuri K, Reilly CW, Tredwell SJ. Management of displaced supracondylar fractures of the humerus using lateral versus crossed K wires: A prospective randomized clinical trial. Recruitment in progress.
- Reilly CW, Mulpuri K, Cooper A, Carsen S. Operative versus nonoperative treatment of Gartland Type IIA supracondylar humeral fractures: A prospective study. Recruitment in progress.
- Mulpuri K, Miyanji F, Reilly C, Doan Q. Splinting versus above elbow casting for Type I supracondylar fractures of the humerus in children: A randomized controlled trial. Recruitment in progress
- Mulpuri K, Davidson D. Validation and reliability testing of the Western Ontario and McMaster Osteoarthritis Scale (WOMAC) hip score in children and adolescents with Perthes disease. Recruitment in progress.
- Mulpuri K, Miyanji F, Reilly CW. A clinical prediction model for growth arrest in pediatric physeal fractures. Recruitment in progress.

### 2019-2020

Dr	M	الما	ri
Dr.	мu	IDU	ri 🗆

• Mulpuri K, Mubarak S, Matheney T, Kelley S, Castaneda P, Foster B, Clarke N, Price C. Prospective observational cohort study of children with hips dislocated at rest. Recruitment in progress.

- Mulpuri K, Abugharbieh R, Hodgson AJ, Quader N. Automatic characterization of the neonatal hip using ultrasound imaging. Recruitment in progress.
- Narayanan U, Mulpuri K, Selber P, Hamdy R. Outcomes of hip interventions for children with cerebral palsy An international multi-centre prospective comparative cohort study. Recruitment in progress.
- Skarsgard ED, Reilly C, Mulpuri K, Innis SM, Gandhi S. Nutritional status of pre-operative surgical patients: Prevalence of malnutrition and impact on surgical outcomes. Recruitment in progress.
- Cooper AP, Mulpuri K, Reilly CW. Simple bone cysts in kids (SBoCK). Recruitment in progress.
- Cooper AP, Mulpuri K, Reilly CW. Observational study of children with limb problems. Recruitment in progress.
- d'Entremont AG, Wilson DR, Hargreaves B, Mulpuri
- K. MR measures of mechanical and cartilage health outcomes in Perthes disease Tlrho and morphology. Recruitment in progress.

٠	Mulpuri K, International Perthes Study Group. A prospective, multi-
	centre, surgeon controlled non-randomized study comparing 6 weeks
	vs 6 months of postoperative non-weight bearing (NWB) in patients
	treated with a surgical containment procedure with the onset of
	Legg-Calvé-Perthes disease between 8 and 11 years of age.
	Recruitment in progress.

- Juricic M, Mulpuri K, Bainbridge L. Children with CP across GMFCS levels requiring orthopaedic surgery: The lived experiences of parents. Recruitment in progress.
- Schaeffer EK, Pathy R, Mulpuri K. Do infants with risk factors for developmental dysplasia of the hip require further radiographic follow-up after a normal clinical examination and ultrasound? A retrospective chart review. Data collection in progress.
- Ho Y, Schaeffer EK, Mulpuri K. Child reported versus parent reported in Activities Scale for Kids -Performance in pediatric orthopaedics. Recruitment in progress.
- Mammen C, Morrison A, Mulpuri K, Reilly C. Acute Kidney Injury in children following major orthopaedic surgery: A prospective cohort study. Recruitment in progress.
- Pathy R, Schaeffer EK, Mulpuri K. Prospective observational cohort study of children with a slipped capital femoral epiphysis. Recruitment in progress.
- Mulpuri K, Cashin MS, Cooper AP. Outcome analysis of comminuted vs. non-comminuted paediatric femur fractures treated with elastic intramedullary nail fixation. Protocol in development.
- Dr. Miyanji
  A Prospective, Multi-center Database Registry of Scoliosis Outcomes in AIS (Op and Non-op)
  A Prospective, Multi-center Database Registry of Scoliosis Outcomes
  - A Prospective, Multi-center Database Registry of Scollosis Outcomes in Cerebral Palsy (Op and Non-op).
     Non-Fusion China Database Registry of Scollosis Outcomes
  - Non-Fusion Spinal Deformity Correction in Idiopathic Scoliosis- A prospective, multi-center registry study of the Harms Study Group.

Dr. Miyanji	<ul> <li>Retrospective Multi-Center Study of the Outcomes of Anterior Vertebral Body Tethering for Spinal Deformity Correction in Idiopathic Scoliosis</li> <li>Anterior Vertebral Body Tethering Post-Op Motion (AVBT POM)</li> <li>FUTURE: Fusionless Treatment of Idiopathic Scoliosis with the Scoli- Tether System During the Growth Period.</li> <li>Serum Metal Ion Levels Post Multi-Level Spine Surgery.</li> <li>Pediatric Spine Registry (PSSG)</li> <li>Topical Tranexamic Acid in Major Pediatric Spine Deformity Surgery: A Randomized Controlled Trial.</li> <li>Motion Preservation Evaluation of the Spine in Idiopathic Scoliosis Following Anterior Vertebral Body Tethering.</li> <li>AIS Body Image and Psych Study (BI)</li> <li>Effect of an Accelerated Discharge Protocol following Posterior Spinal Fusion for AIS.</li> </ul>
Dr. Ghag	<ul> <li>Intraoperative CT Guided Surgical Navigation in Pediatric Spinal Deformity Correction - a Quantification of Radiographic Dose - IRB approval and subsequent data acquisition (25% complete)</li> <li>Effect of Baseline Blood Pressure on Intraoperative Neuromonitoring in Adolescent Idiopathic Scoliosis Correction Surgery - IRB approval and subsequent data acquisition (25% complete)</li> </ul>
Dr. Cooper	<ul> <li>Development of a Quality of Life Instrument for Children with Lower Limb Deformities. Qualitative phase finished / ongoing cognitive debriefing interviews (70% complete).</li> <li>Observational Study of Children with Limb Problems (Limb Deformity Database). Recruitment in progress (296 patients recruited, recruitment ongoing, longitudinal study).</li> <li>Multicentre Pin Site Infection Study. Recruitment in progress at 12 centres / ethics applications in progress at 6 of the centres (150 patients recruited, 50% complete).</li> <li>Next Generation Sequencing in Rare Disorders: Congenital Pseudarthrosis of the Tibia. Recruitment in progress. (6 patients recruited).</li> <li>Simple Bone Cysts in Kids (SBoCK). Recruitment in progress (1 patient recruited).</li> <li>Evaluating the Accuracy of the Multiplier Method for Estimating the Difference in Leg Lengths in Children with Vascular Anomalies. Patient call-back in progress.</li> <li>Preventative Multimodal Analgesia for Children Undergoing Lower Limb Reconstruction with External Fixators: A Prospective Study of Postoperative Pain. Recruitment in progress (22 patients recruited, 73% complete).</li> <li>Paediatric Elbow Fractures from the Child's Viewpoint. Manuscript ready for submission.</li> <li>Weight-bearing MRI in Perthes. Pilot paper published, more data collection in progress (50% complete).</li> <li>Psychological Assessment in Mothers with DDH babies. Manuscript preparation in progress.</li> </ul>

Dr. Cooper	<ul> <li>International CPT Registry. Recruitment in progress (7 patients recruited at BCCH, ethics in progress at other sites, 10% complete)</li> <li>CHILD Network - Multicentre Limb Deformity Registry- Protocol in development</li> <li>Rabbit Femur Project - HA coated pins versus non-HA coated pins. Protocol in development</li> <li>Knee Range of Motion Study. Data analysis in progress.</li> <li>SCH Type 1 RCT. Protocol developed, ethics in progress.</li> <li>Natural History of Morquio B Study - Database undergoing testing</li> <li>HRQOL in Fibular Hemimelia - Data analysis and manuscript preparation in progress</li> <li>Functional outcomes in children undergoing external fixation - Data analysis in progress.</li> <li>Design and Fabrication of Patient-Specific Shoe Insoles for Patients with Fibular-Hemimelia- Proposal in progress</li> <li>Gait Analysis in children with lower limb deformities- Proposal in progress.</li> <li>Epidemiology of Limb reduction defects - Proposal in progress.</li> <li>Efficacy and safety of "sleeper plate" in temporary hemiepiphysiodesis and the observation of "tethering" Data analysis and manuscript preparation in progress.</li> <li>Clinical Outcomes in Pediatric Tibial Lengthening and Deformity Correction: A comparison of the Taylor Spatial Frame with the Orthex</li> <li>ring fixator- Manuscript under review</li> <li>Management of Genu Recurvatum (case series) - Manuscript under review</li> </ul>
Dr. Leveille	<ul> <li>Delay in Diagnosis and Management of Adolescent Anterior Cruciate Ligament Injuries in a Publicly Funded Healthcare System. Manuscript preparation, pending submission to BCMJ.</li> <li>Quads or Quins? An unexpected cause of atraumatic restricted knee flexion in children. Accepted case report in Pediatric Radiology.</li> <li>Changes in Pedobarography, Fluidity of Movement and Range of Motion in Adolescent Patients Undergoing myoActivation for Chronic Pain related to Myofascial Dysfunction. Pilot project initiated and prospective protocol in development.</li> <li>Motion Preservation Evaluation of the Spine in Idiopathic Scoliosis Following Anterior Vertebral Body Tethering: two- and three- dimensional approaches. Protocol in development.</li> <li>Quadriceps realignment and rectus femoris re-routing: description of a novel procedure for proximal extensor mechanism realignment in skeletally immature patients. Data collection/analysis in progress.</li> <li>Split Tibialis Posterior Tendon Transfer (SPOTT) for Equinovarus Foot in Cerebral Palsy. Data collection/analysis in progress.</li> <li>Psychological Impact of Delayed ACL Reconstruction in Adolescents. Protocol in development.</li> <li>Differences in caregiver perspective on quality of life of children with cerebral palsy. Data collection/analysis in progress.</li> <li>Complications of bilateral, staged, and unilateral hip reconstruction surgery for children with CP. Data collection/analysis in progress.</li> </ul>

### 2019-2020

Dr. Leveille	<ul> <li>Adductor Canal Block in the Management of Post-op Pain in Pediatric ACL Reconstruction, Development of a Prospective Study. Retrospective review in progress and prospective protocol in development.</li> <li>Acute and Persistent Postoperative Developmental Decline in Patients with Cerebral Palsy. Data collection/analysis in progress.</li> <li>Gait analysis outcomes in patients having undergone selective percutaneous myofascial lengthening. Protocol in Development.</li> <li>Hip Displacement in Asymmetric Diplegia - Are all children at GMFCS II and III the same? Data collection/analysis in progress.</li> </ul>
Dr Pirani	Uganda Sustainable Clubfoot Care Project (USCCP)

• Sustainable Clubfoot Care in Bangladesh (SCCB)





# DIVISION OF PEDIATRIC OTOLARYNGOLOGY





## **FACULTY MEMBERS**

## 2018-2019



Dr Neil K Chadha MBChB(Hons), MPHe, BSc(Hons), FRCS, (Division Head)



Dr Jeffrey P Ludemann MD, FRCSC



Dr Frederick K Kozak MD, FRCSC



Dr J Paul Moxham MD, FRCSC

## **STAFF MEMBERS**

- Marlina Anderson, MOA to Dr. Kozak
- Nancy Davies, MOA to Dr. Ludemann & Dr. Moxham
- Michelle Poulsen, MOA to Dr. Ludemann & Dr. Moxham
- Grace Soleta, MOA to Dr. Chadha

- Patsy Regan RN, Pediatric Otolaryngology Clinical Nurse
- Hope Moir RN, Pediatric Otolaryngology Clinical Nurse
- Cheryl Atkins-Labelle RN, Pediatric Otolaryngology Sedation Nurse

## HIGHLIGHTS & ACHIEVEMENTS 2018-2019

### Dr Neil K Chadha

Founder and Chair of the Complex Aerodigestive Disorders Team – Bimonthly Multidisciplinary Educational Rounds including:Otolaryngology, Respirology, General Surgery, Gastroenterology, Neonatal Intensive Care, Anesthesia, Intensive Care

### **TEACHING ACTIVITIES**

FELLOWS SUPERVISED	Dr Rhodri Costello (Wal Dr Paula Tellez (Colombi Dr Carolina Grau (Chile Dr. Hasan Kular (Allergy	a)
RESIDENTS SUPERVISED	Ameen Amanian Emily Deane Joel Howlett Karima Jiwa Kevin Zhao Michael Yong	Saad Ansari Ethan Newton Evie Landry Dianne Valenzuela Harman Parhar Alex Butskiy
STUDENTS SUPERVISED	Jamal, Naeya Shatani, Kia Camilla Hong, Gurjit Parn Foley, Palak Suryavarshi, E Justin Wong, Machkenzie Purcell, Emily Lostchuck,	Edward Sykes, Julie Wong, e Simpson, Cissy Yi, Chad Jan Valle, Vanessa Zoe Friessen, Cynthia Min,

### **SCHOLARLY & PROFESSIONAL** 2018-2019 **ACTIVITIES**

Name		Lectures/Pres	sentations			
Dr Neil K Chadh (Workshop)	a	Alternatives in th pediatric patient Colombian Otorh	. Annual Me	eting of the	e Associatior	n of
Dr Neil K Chadh (Keynote Addre		Modern approac of the Associatio Colombia, March	n of Colomb			
Dr Neil K Chadh (Keynote Addre		Laryngomalacia : Meeting of the A Bogota, Colombi	ssociation of	<sup>-</sup> Colombia	-	
Dr Neil K Chadh (Keynote Addre	-	Endoscopic ear s the microscope. Otorhinolaryngo	Annual Meet	ing of the	Association	of Colombian
Dr Neil K Chadh	a	Luu K, Valenzuel anomaly: Case se and Throat Disea December 2018.	eries and revi	ew of litera	ature. Societ	y for Ear Nose
Dr Neil K Chadh	a	Nguyen S, Chadh and Post-operati Society of Otolar Society of Otolar Meeting, Québec	ve Antibiopr yngology-He yngology-He	ophylaxis: ad and Ne ad and Ne	Survey of the ck Surgery. (	e Canadian Canadian
J. P. Ludemann (Invited Panelis	t)	"Foreign Bodies i transferred?" 14th of Pediatric Otol	n Internation	al Congres	s of the Eurc	pean Society
GRANTING	TITLE	COMP	\$/YEAR	YEAR	Ы	CO-PI
AGENCY	Ainsley		\$9 000	2019	Chadha/	
UBC	Anisiey		φ <u>υ</u> 000	2015	Chuunu/	

\$5 000

2018

Pacific

Society

Otolaryngology

Memorial

Seed Grant

С

Grant

Kozak

Chadha/

Kozak

Name	Committee
Dr Neil K Chadha	American Society of Pediatric Otolaryngology Research Committee
	BC Children's Hospital Airway Committee
	UBC Otolaryngology Resident Competency Committee
	UBC Otolaryngology Residency Training Committee
	UBC Otolaryngology Executive Committee
	UBC Otolaryngology Research Committee
	UBC Otolaryngology Fellowship Committee

### **PUBLICATION RECORDS**

## 2018-2019

Name
------

Dr Neil K Chadha

- **Publication Citation**
- 1. **Chadha NK**. Silent Aspiration in Laryngomalacia-Not a Hard Concept to Swallow. JAMA Otolaryngol Head Neck Surg. 2019 1;145(2):151-152.
- 2.Jin L, Téllez P, Chia R, Lu D, **Chadha NK,** Pauwels J, Dobson S, Al Eid H, Kozak FK. Improving vaccination uptake in pediatric Cochlear implant recipients.J Otolaryngol Head Neck Surg. 2018 17;47(1):56.
- 3. Manji J, Thamboo A, Tacey M, Garnis C, **Chadha NK.** The presence of Interleukin-13 in nasal lavage may be a predictor of nasal polyposis in pediatric patients with cystic fibrosis. Rhinology. 56(3):261-267
- 4. Lu DYD, Pauwels J, Jin L, Kozak FK, **Chadha NK.** Detection of abnormally shaped ears by a trained non- specialist allows for early non-surgical intervention. Int J Pediatr Otorhinolaryngol. 2018;110:22-26.
- 5. Luu K, Valenzuela D, Moxham JP, **Chadha NK.** A sternoclavicular anomaly: Case series and review of literature. Society for Ear Nose and Throat Diseases in Children Annual Meeting, Houston, December 2018.
- 6.Costello R, **Chadha NK**, Ludemann JP: Letter to the Editor: In response to article by Anfang, R.R., et al (re: esophageal disc battery secondary prevention measures), accepted Oct 19, 2018; published in Laryngoscope. 2019 May;129(5)

Book Chapter: **Chadha NK.** Impact on Quality of Life. In: Recurrent Respiratory Papillomatosis (Ed: P Campisi), 2018 ISBN 978-3-319-63823-2.

### **PUBLICATION RECORDS**

Name	Publication Citation
Dr Jeffrey P Ludemann	<ol> <li>Shaw R, Dias C, Ludemann J, Rupps R, Tsai V, Lehman A. Familial impairment of vocal cord mobility in childhood with clubfoot. Clinical Dysmorphology. Accepted May 14, 2018 Clin Dysmorphol. 2018 Jun 14. doi: 10.1097/MCD.000000000000227. [Epub ahead of print]</li> <li>Akbari A, Gurberg J, Strahlendorf C, Ludemann JP. Luc's Abscess: First Reported Case with Coexisting Intracranial Abscess and/or Venous Sinus Thrombosis. Surgical Case Reports. Published Sept 2018. doi: 10.31487/j.SCR.2018.03.005</li> <li>Akbari A, Gurberg J, Strahlendorf C, Ludemann JP. Luc's Abscess: First Reported Case with Coexisting Intracranial Abscess and/or Venous Sinus Thrombosis. Surgical Case Reports. October 2018. DOI: 10.31487/j.SCR.2018.03.005</li> <li>Costello R, Chadha N, Ludemann JP: Letter to the Editor: In response to article by Anfang, R.R., et al (re: esophageal disc battery secondary prevention measures), accepted Oct 19, 2018; published in Laryngoscope. 2019 May;129(5)</li> </ol>
J P Moxham	Terry J, Brown K, Hiebert J, Al-Rawahi GN, Moxham JP, Krajden M, Jassem AN, Tucker L.Measles Lymphadenopathy in a Child With PFAPA Syndrome. Pediatr Dev Pathol. 2018 Sep- Oct;21(5):497-501.

## 2018-2019

### February 22-28, 2019

4th Annual Global Choking Prevention Week, using social media platforms (Be Smart, Don't Choke on Facebook, Instagram and Twitter to educate the public about choking & caustic ingestion hazards, to prevent accidental injuries and deaths. http://dontchoke.ubc.ca

# DIVISION OF PEDIATRIC OTOLARYNGOLOGY



## **FACULTY MEMBERS**

## 2019-2020



Dr Neil K Chadha MBChB(Hons), MPHe, BSc(Hons), FRCS, (Division Head)



Dr Jeffrey P Ludemann MD, FRCSC



Dr Frederick K Kozak MD, FRCSC



Dr Mark Felton MBchB, Msc, MD, FCRS

### **STAFF MEMBERS**



Dr J Paul Moxham MD, FRCSC



Dr Ronak Rahmanian MD, FRCSC

- Aisa Danganan, MOA to Dr Chadha & Dr. Felton
- Nancy Davies, MOA to Dr. Ludemann & Dr. Moxham
- Philana Do, MOA to Dr. Kozak & Dr. Rahmanian

- Michelle Poulsen, MOA to Dr. Ludemann & Dr. Moxham
- Hope Moir RN, Pediatric Otolaryngology Clinical Nurse
- Patsy Regan RN, Pediatric Otolaryngology Clinical Nurse
- Cheryl Atkins-Labelle RN, Pediatric Otolaryngology Sedation Nurse

## HIGHLIGHTS & ACHIEVEMENTS 2019-2020

### Recruitment of 2 new faculty to join the BCCH Division of Pediatric Otolaryngology

### From July 2019 - Dr. Ronak Rahmanian

Rahmanian completed her undergraduate education Dr. Ronak in Microbiology and immunology at the University of British Columbia, during which time she worked at the British Columbia Center for Disease Control as well as the Protiva Biotherapeutic Company performing basic science research. She then earned her medical degree and completed her residency at the University of British Columbia. She pursued a fellowship in Otology & Neurotology at the St. Paul's Hospital Rotary Hearing Clinic & Vancouver Hospital Neurotology Services. She completed a second fellowship in Pediatric Otolaryngology at Rady Children's Hospital and worked as an Assistant Clinical Professor at the University of California San Diego (UCSD) -Rady Children's Hospital as a full-time pediatric otolaryngologist prior to joining the pediatric otolaryngology team at BC Children's Hospital. Although she enjoys all aspects of clinical pediatric otolaryngology, she has a special interest in pediatric ear surgery and cochlear implants. Dr. Rahmanian was raised in Vancouver, Canada. During her spare time she enjoys the outdoors, playing tennis, skiing, learning to surf and spending time with her friends and family.

### From November 2019 - Dr. Mark Felton

Originally from the UK, he studied at the University of Leeds in England, graduating with an Honours degree in Anatomy before completing his medical degree. Dr. Felton carried out his specialist ENT training at the University of Manchester. Following this, he undertook a subspecialist pediatric ENT fellowship in Vancouver at BC Children's Hospital in 2015/2016. After this he spent over 3 years at the Evelina London Children's Hospital, UK, as a consultant otolaryngologist with a subspecialist interest in children's ear disorders. He rejoined the Division of Pediatric Otolaryngology at BC Children's Hospital as a consultant in 2019. Dr Felton is active in medical teaching, having completed a Master's degree in Medical Education. He regularly enjoys teaching trainees, students and allied specialists. He is also active in research, having a postgraduate research degree, with numerous international presentations and peer reviewed publications. His research focuses on ear disorders and outcomes from implantable hearing aids.

### **TEACHING ACTIVITIES**

FELLOWS SUPERVISED	Dr Katharina Leitmeyer (Switzerland) Dr Carolina Grau (Chile) Dr Rhodri Costello (Wales)	
RESIDENTS SUPERVISED	Laura Allen Graham McIntyre Ameen Amanian Emily Deane Joel Howlett Kevin Zhao Sarah Riedlingar, Paedia Carrie Smythies, Paedia	
STUDENTS SUPERVISED	Saroop Dhatt, James Whale, David Jarrett, Nathan Hatchman, Kevin Li, Jasmin Cheng, Tony Fang, Surpreet Sekhon, Ryan Instrum, Gia Gill, Andrew Chan, Kendell Pon, Vincent Suen, Jonathan Rubenstein, William Mak, Ali Jamal, Jason Wong	

Name	Lectures/Presentations
Dr Neil K Chadha (Invited)	The COVID-19 Surgery Box. OPSEI Academic Rounds, May 2020, Vancouver.
Dr Neil K Chadha (Keynote Address)	Pediatric airway problems. Confederation of European ORL-HNS Annual Meeting, Brussels, Belgium June 2019.
Dr Neil K Chadha (Keynote Address)	Modern approaches to laryngotracheal stenosis. Confederation of European ORL- HNS Annual Meeting, Brussels, Belgium June 2019.
Dr Neil K Chadha (Invited)	Should we be using ultrasound in the clinic? Dialogues in Pediatric Otolaryngology, Paris, France, May 2019.
Dr Neil K Chadha (Invited)	Tracheostomy problems we never discuss. EndoDays International Meeting, San Diego, December 2019.

Name	Lectures/Presentations
Dr Neil K Chadha	Grau C, Pauwels J, Leitmeyer K, Bergstrom, R, <b>Chadha NK</b> Compliance and QOL in children with unilateral aural atresia receiving a transcutaneous bone conduction hearing implant. Society of Ear Nose & Throat Disorders in Children, San Diego, December 2019.
	Chhabra A, Napoleone N, Mainra N, Garde A, Hooopenbrouwer X, Dunsmuir D, Lee J, <b>Chadha NK</b> , Wensley D, Ansermino M. Monitoring at Home Before and After Tonsillectomy: A Feasibility Study. World Sleep Congress, Vancouver, September 2019.
	Liu A, Pliska B, Wu, F, Pauwels J, Amenyogbe A, Kozak, F, <b>Chadha NK.</b> Facial morphology in pediatric patients: A comparison of patients at risk for sleep- related breathing disorders utilizing 3D imaging. Canadian Society of Otolaryngology-Head and Neck Surgery Annual Meeting, Edmonton, June 2019.
	Grau C, Costello R, Pauwels J, Kozak F, Atkins-Labelle C, <b>Chadha NK.</b> Intranasal Dexmedetomidine: A new tool for sedation in children with autism undergoing Audiometry Brainstem Response. Canadian Society of Otolaryngology Head and Neck Surgery Annual Meeting, Edmonton, June 2019.
	Luu K, Tellez P, <b>Chadha NK.</b> Effectiveness of adjunctive Mitomycin in Otolaryngologic procedures: a systematic review. Canadian Society of Otolaryngology-Head and Neck Surgery Annual Meeting, Edmonton, June 2019.
	Liu A, Pliska B, Wu, F, Pauwels J, Amenyogbe A, Kozak, F, <b>Chadha NK</b> . Facial morphology in pediatric patients: A comparison of patients at risk for sleep-related breathing disorders utilizing 3D imaging. American Society of Pediatric Otolaryngology Annual Meeting, Austin, May 2019.
	Grau C, Costello R, Pauwels J, Kozak F, Atkins-Labelle C, <b>Chadha NK</b> . Intranasal Dexmedetomidine: A new tool for sedation in children with autism undergoing Audiometry Brainstem Response. American Society of Pediatric Otolaryngology Annual Meeting, Austin, May 2019.
### **SCHOLARLY & PROFESSIONAL** 2019-2020 **ACTIVITIES CON'T**

Name	Lectures/Presentations
Dr Ronak Rahmanian	Trends of Pediatric Cochlear Implantation: Inpatient vs. Outpatient. American Society of Pediatric Otolaryngology (May 2019)
	Hearing Loss in Infants and Children. Practical Pediatric CME course
	Topics in Pediatric Otolaryngology: Pediatric Vertigo and Eustachian tube Balloon Dilation. Visiting Professor's rounds
	Current Interests in Pediatric Otolaryngology and Future Goals. BC Children's Hospital Surgical Rounds
J. Paul Moxham, MD, FRCSC	Sternoclavicular sinus: Case series and literature review of a rare head and neck lesion. Luu K, Valenzuela D, Chadha NK, Moxham P. Presented as a poster.

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
E2i	Innovation Grant Rare Diseases	С	\$10 000	2020	Chadha	
Rare Diseases Foundation	Foundation Micro-grant	С	\$5 000	2020	Chadha	
UBC	Strategic Investment Fund	С	\$988 000	2019	Wensley	Chadha

Name	Committee
Dr Neil K Chadha	American Society of Pediatric Otolaryngology Research Committee
	Director of BC Children's Complex Aerodigestive Team
	BC Children's Surgical Cabinet
	Competency Committee UBC Otolaryngology Residency Training Committee
	UBC Otolaryngology Executive Committee
	UBC Otolaryngology Research Committee
	UBC Otolaryngology Fellowship Committee
Dr Ronak Rahmanian	Otolaryngology Residency Training Committee
J. Paul Moxham, MD, FRCSC	UBC Otolaryngology Undergraduate Education Committee

Name	Publication Citation
Dr Neil K Chadha	<ol> <li>Yong M, Pauwels J, Kozak FK, Chadha NK. Application of augmented reality to surgical practice: A pilot study using the ODG R7 Smartglasses. Clin Otolaryngol. 2020;45(1):130-134.</li> <li>Moxham LMR, Chadha NK, Courtemanche DJ. Is there a role for computed tomography scanning in microtia with complete aural atresia to rule out cholesteatoma?. Int J Pediatr Otorhinolaryngol. 2019;126:109.</li> <li>Luu K, Valenzuela D, Chadha NK, Moxham P. Sternoclavicular sinus: Case series and literature review of a rare head and neck lesion. Int J Pediatr Otorhinolaryngol. 2019;125:175-181.</li> <li>Costello R, Ludemann JP, Chadha NK. In reference to pH-neutralizing esophageal irrigations as a novel mitigation strategy for button battery injury. Laryngoscope. 2019 May;129(5):E162.</li> <li>Landry EC, Yong M, Pauwels J, Chadha NK. The use of video glasses improved learning of tonsillectomy and adenoidectomy surgery: A randomized controlled trial. Int J Pediatr Otorhinolaryngol. 2019;117:12-16.</li> </ol>
Dr Neil K Chadha, Dr M Felton	Book Chapter: <b>Chadha NK, Felton M</b> , Arneja J. Pediatric Neck Masses. In: Operative Techniques in Plastic Surgery (Ed: K Chung), 2019 978-1496339508.

Name	Publication Citation
Dr Ronak Rahmanian	<ol> <li>Liou Friesen T, Zamora SM, Rahmanian R, Bundogji N, Brigger MT. Predictors of pediatric tracheostomy outcomes in the United States. Otolaryngol Head Neck Surg. 2020, DOI: 10.1177/0194599820917620</li> <li>Oleksandr B, Rahmanian R, MacNeil SD, Anderson DW. Pharyngeoesophageal reconstruction with the gastrtic pull up: functional outcome in cohort of 49 patients. Clin Otolaryngol. 2019, DOI: 10.1111/coa.13503</li> </ol>
Dr Jeffrey P Ludemann MD, FRCSC	Propst E, <b>Ludemann JP</b> , et al. Competency- based assessment tool for pediatric tracheotomy: International modified Delphi consensus. Early view published 2019 Dec 10. Laryngoscope. DOI: 10.1002/lary.28461
Dr J. Paul Moxham, MD, FRCSC	Sternoclavicular sinus: Case series and literature review of a rare head and neck lesion. Luu K, Valenzuela D, Chadha NK, <b>Moxham P</b> .Int J Pediatr Otorhinolaryngol. 2019 Oct;125:175-181.

# **INITIATIVES IN PROGRESS**

February 22-29, 2020	5th Annual Global Choking Prevention Week, using social media platforms (Be Smart, Don't Choke on Facebook, Instagram and Twitter, to educate the public about choking & caustic ingestion hazards, to prevent accidental injuries and deaths). http://dontchoke.ubc.ca
March 2020	STAYING SAFE AT HOME during the COVID-19 Pandemic (original title: Critical Education of Families on Choking Prevention; UBC Project given expedited approval & UBC Medical Student recruitment started March 28, 2020. Main contributors from UBC Medical School: Shailee Siddhpuria and Jennifer Ham; then transformed into International Project; major collaboration with Dr. Evan Propst (University of Toronto) and Dr. Reza Rahbar (Harvard University; Chair of the International Pediatric Otolaryngology Group). This initiative reached > 5 million people globally, late March – mid April, 2020.

# DIVISION OF PEDIATRIC PLASTIC SURGERY



# **FACULTY MEMBERS**

# 2018-2020



**OPSEI** Annual Report

# **STAFF MEMBERS**

# 2018-2020

# Nursing Staff:

• Wendy Moss, RN

### **Research Staff:**

- Dr. Marija Bucevska, Research Coordinator
- Ms. Rebecca Courtemanche, Research Coordinator

### Administrative Staff:

- Ms. Norine Mayede, Division Administrative Assistant & Medical Office Assistant to Dr. Verchere
- Ms. Audrey Potkonjak, Office Assistant to Dr. Verchere
- Ms. Anastasia Mitzel, Medical Office Assistant to Dr. Arneja
- Ms. Rupinder Parhar, Medical Office Assistant to Dr. Courtemanche
- Ms. Inder Akali, Medical Office Assistant to Dr. Henkelman
- Ms. Sandeep Nahal, Medical Office Assistant to Dr. Hynes

# HIGHLIGHTS & ACHIEVEMENTS 2018-2019

#### Dr. Douglas Courtemanche

Medical Staff Association of Children's and Women's Hospital Awards 2018: Patient Champion



# HIGHLIGHTS & ACHIEVEMENTS 2019-2020

#### Brachial Plexus Team led by Dr. Cynthia Verchere

BCCH Excellence for Interprofessional Collaborative Practice -Honorable Mention

#### Dr. Douglas Courtemanche

Medical Staff Association of Children's and Women's Hospital Awards 2019: Patient Champion

#### Dr. Marija Bucevska

UBC Department of Surgery: 2019 Nicky Dorken Award for Excellence in Service

### **TEACHING ACTIVITIES**

FELLOWS SUPERVISED	Dr. Sarah Gardiner				
RESIDENTS SUPERVISED	R3 – Zach Zhang R3 (CIP) – Peter Mankowski R4 – Nawaf Al Muqaimi R4 – Jacques Zhang	R4 - Janine Roller R4 - Diana Forbes R5 - Sofie Schlagintweit			
STUDENTS SUPERVISED	Gina Peck Aida Rahavi Amanat Purewal	Inayah Manji Sheikh Nafeel Ahmed			

FELLOWS SUPERVISED	Dr. Jasmine Tang Dr. Arlene Nakanwagi
RESIDENTS SUPERVISED	R3 - Nawaf Al Muqaimi R3 - Jacques Zhang R3 - Janine Roller R3 (CIP) - Peter Mankowski R3 (CIP) - Diana Forbes R4 (CIP) - Daniel Demsey R4 - Sophie Schlagintweit R5 - Aaron Van Slyke R5 - Stahs Pripotnev
STUDENTS SUPERVISED	Meghan Boersma Matthew Boroditsky Michael Carr Nancy Duan Jovi Sidhu Michaela Skarlicki Sorush Rokui Leo Yefet

### SCHOLARLY & PROFESSIONAL ACTIVITIES

GRANTING AGENCY	TITLE	\$ PER YEAR	YEAR	PRINCIPLE INVESTIGATOR & CO- INVESTIGATORS
UBC Plastic Surgery Academic Grant	Using Colors, Icons and Interactive Sliders in the Design of a Questionnaire	\$4,848.54	2019	<b>D. Courtemanche</b> Co I: Tyler Omeis
University of Manitoba (CIHR)	Creation of an advancement in burn care in Canada network (extension)	\$4,000.00 2019		<b>C. Verchere</b> Co I: Sarvesh Logsetti
BCCH Foundation	Identification of rejection- resistant fibroblasts for the improvement of transplantation outcomes and wound healing	\$722.00	2019	<b>G. Reid</b> Co I: Dr. Ali Farrokhi, Dr. Sally Hynes, Dr. Cynthia Verchere
E2i Seed Grant 2018-2019	Does Timing Matter? Early vs. Late Tympanostomy Tubes Placement in Infants with Cleft Lip and Palate: A Pilot Study	\$5,000.00 2019		<b>J. Arneja</b> Co I: N. Chadha, S. Palm, Christina Bingham
E2i Seed Grant 2018-2019	Opioid Prescribing Patterns for Children in British Columbia	\$10,000.00	2019	<b>D. Courtemanche</b> Co I: G. Lauder
E2i Seed Grant 2018-2019	A quantitative evaluation of the impact of presurgical orthopaedics with taping on facial morphology in the cleft lip and palate population	1		<b>C. Verchere</b> Co I: A. Loo, S. Vora
Rare Disease Foundation	Long-term outcomes of patients with unresectable arteriovenous malformations: A 25-year chart review	\$5,000.00	2018	<b>D. Courtemanche</b> Co I: J. Arneja
Rare Disease Foundation	Describing the Population of Patients with 22q11.2DS in British Columbia and Characterizing their Care Needs	\$5,000.00	2018	<b>C. Loock</b> Co I: D. Courtemanche, Patrice Eydoux, Anna Lehman, Matthew Boroditsky

### SCHOLARLY & PROFESSIONAL ACTIVITIES

GRANTING AGENCY	TITLE	\$ PER YEAR	YEAR	PRINCIPLE INVESTIGATOR & CO- INVESTIGATORS		
University of Manitoba (CIHR)	-		2018	<b>C. Verchere</b> Co I: Sarvesh Logsetti		
Rare Disease Foundation	Surgical Correction of Velopharyngeal Dysfunction in Children with 22q11.2 Deletion Syndrome	\$3,450.00	2018	<b>D. Courtemanche</b> Co I: Sheryl Palm, C. Loock, Meghan Boresma		
OPSEI	Improving the practice of referrals for a multidisciplinary vascular anomalies clinic			D. Courtemanche		
McMaster University (CIHR)	CLEFT-Q Phase III	\$3,250.00	2018	<b>D. Courtemanche</b> A. Klassen (Lead PI)		
MASES Benchmarking MRI wait times to enhance service delivery to pediatric patients in British Columbia and the Yukon		\$29,426.00	2018	<b>John Mawson</b> Co I: J. Arneja, J. Potts, M. Sargent, C. Strahlendorf		
UBC	Long-term outcomes of patients with unresectable arteriovenous malformations: A 25-year chart review		2018	<b>D. Courtemanche</b> Co I: J. Arneja		
OPSEI	Outcomes of Pharyngeal Flap Surgery in Patients with Velopharyngeal Insufficiency	\$3,200.00	2018	<b>J. Arneja</b> Sheryl Palm		
UBC	Head or Tails: What is the Best Split Thickness Skin Graft Donor Site?	\$3,200.00 2018		S. Hynes		
UBC	Successes and Challenges of Transition from Pediatric to Adult Care for Individuals with 22q11.2DS	\$3,200.00	2018	C. Loock		

### SCHOLARLY & PROFESSIONAL 2018-2019 ACTIVITIES

GRANTING AGENCY	TITLE	\$ PER YEAR	YEAR	PRINCIPLE INVESTIGATOR & CO- INVESTIGATORS
UBC	Evaluation of Internal Rotation and Elbow Function Following the Sup-ER Protocol in Children with Birth Related Brachial Plexus Injuries	\$3,200.00	2018	C. Verchere
BC Children's Hospital Research Institute	"Surgical Correction of Velopharyngeal Dysfunction in Children with 22q11.2 Deletion Syndrome"	\$4,725.00	2018	C. Verchere

#### DR. JUGPAL ARNEJA

Vascular Anomalies (Invited Presenter)

The American Society of Maxillofacial Surgeons (Webinar, April 2018)

### SCHOLARLY & PROFESSIONAL 2019-2020 ACTIVITIES

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
E2i	Fetal Cleft Study	С	\$5 000	2020	E. Henkelman	D. Pugash, S. Nikkel, K. Sangha
E2i	Identification of rejection- resistant fibroblasts for the improvement of transplantati on outcomes and wound healing: Phase 2. Early wound healing experiments	C	\$5 000	2020	S. Hynes	G. Reid, A. Farrokhi, C. Verchere, D. Courtemanc he, J. Arneja, E. Henkelman, J. Terry
Rare Disease Foundation	Identification of Rejection- Resistant Fibroblasts for use in Bio- Engineered Skin Substitutes	C	\$5 000	2019	S. Hynes	Ali Farrokhi, Gregor Reid
OPSEI	Ear Molding	NC	\$1 181.25	2019	C. Verchere	K. Durlacher

Dr. Cynthia	<ul> <li>VGH/BCCH Burn Program ad hoc Committee (Chair)</li> </ul>					
Verchere	<ul> <li>UBC Plastic Surgery Resident Program Committee</li> </ul>					
	<ul> <li>UBC Plastic Surgery CaRMS Selection Committee</li> </ul>					
	BCCH Surgical Cabinet Committee member					
	<ul> <li>BCCH Surgical Services Advisory Committee member</li> </ul>					
	BCCH Burn Resource Committee member					
	BCCH Burn Collaborative Leadership Committee					
	<ul> <li>BCCH Ambulatory Project Steering Committee member</li> </ul>					
	BCCH Ambulatory Leadership Committee member					
	<ul> <li>Editorial Board member, British Columbia Medical Association Journal</li> </ul>					
Dr. Jugpal Arneja	<ul> <li>Treasurer:         <ul> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of Pediatrics, Section on Plastic Surgery (AAP SOPS)</li> </ul> </li> </ul>					
<u> </u>	<ul> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of</li> </ul>					
<u> </u>	<ul> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of Pediatrics, Section on Plastic Surgery (AAP SOPS)</li> <li>Abstract Review Committee Member: Canadian</li> </ul>					
<u> </u>	<ul> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of Pediatrics, Section on Plastic Surgery (AAP SOPS)</li> <li>Abstract Review Committee Member: Canadian Society of Plastic Surgeons - 2018 Annual Meeting</li> <li>Communications/Newsletter Committee (chair):</li> </ul>					
<u> </u>	<ul> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of Pediatrics, Section on Plastic Surgery (AAP SOPS)</li> <li>Abstract Review Committee Member: Canadian Society of Plastic Surgeons - 2018 Annual Meeting</li> <li>Communications/Newsletter Committee (chair): Division of Plastic Surgery, UBC</li> <li>Academic Surgery Fund (chair): Division of Plastic</li> </ul>					

# 2018-2019

#### Dr. Douglas J. Courtemanche

- Cleft Palate Programme Review Committee (member): BC Children's Hospital
- C&W Clinical Informatics Advisory Committee (chair)
- C&W Clinical Informatics Executive Group (member)
- PHSA Biohazard Exposure Control Exception Review Committee (member)
- PHSA IMITS Policy & Planning Committee (member)
- UBC Plastic Surgery Resident Program Committee
- UBC Plastic Surgery CaRMS Selection Committee
- Doctors of BC FEI Evaluation Committee



Name	Committee		
Dr. Cynthia Verchere	VGH/BCCH Burn Program ad hoc Committee (Chair)		
	UBC – Plastic Surgery – Residency Program Committee		
	UBC – Plastic Surgery – CaRMS Selection Committee		
	BCCH Surgical Cabinet Committee member		
	BCCH Surgical Services Advisory Committee member		
	BCCH Burn Resource Committee member		
	BCCH Burn Collaborative Leadership Committee		
	BCCH Ambulatory Project Steering Committee member		
	BCCH Ambulatory Leadership Committee member		
	Editorial Board member, British Columbia Medical Association Journal		
Dr. Sally Hynes	VGH/BCCH Burn Program ad hoc Committee (member)		
	BCCH Burn Resource Committee member		
	BCCH Burn Collaborative Leadership Committee		

Name	Committee		
Dr. Jugpal Arneja	<ul> <li>Treasurer:</li> <li>Executive Committee, American Association of Pediatric Plastic Surgeons (AAPPS)</li> <li>Executive Committee, American Association of Pediatrics, Section on Plastic Surgery (AAP SOPS)</li> </ul>		
	Communications/Newsletter Committee (chair): Division of Plastic Surgery, UBC		
	Academic Surgery Fund (chair): Division of Plastic Surgery, UBC		
	Medical Advisory Committee (MAC) Member		
	Negotiations Committee/Representative, Clinical Services Contract, Department of Surgery		
	Anastasia Global Care Fund Deliberations Committee (chair), BCCH		
Dr. Douglas J. Courtemanche	Cleft Palate Programme Review Committee (member): BC Children's Hospital		
	C&W Clinical Informatics Advisory Committee (chair)		
	C&W Clinical Informatics Executive Group (member)		
	PHSA Biohazard Exposure Control Exception Review Committee (member)		
	PHSA IMITS Policy & Planning Committee (member)		
	UBC – Plastic Surgery – Residency Program Committee		
	UBC – Plastic Surgery – CaRMS Selection Committee		
	Doctors of BC – FEI Evaluation Committee		

Dr. Cynthia Verchere	• Bjornson, L, Bucevska, M, Tilley, P, & Verchere, C. Is it safe to re-access sodium bicarbonate bottles for use in minor surgery? Journal of Pediatric Surgery. 2018;53(11), 2290– 2293. http://doi.org/10.1016/j.jpedsurg.2018.04.005					
Dr. Jugpal Arneja	<ul> <li>Malhotra AK, Amed S, Bucevska M, Bush KL, Arneja JS. De Adolescents with Gynecomastia Require Routine Evaluation by Endocrinology? Plast Reconstr Surg. 2018;142(1):9e-16e. Plastic and Reconstructive Surgery: Ju 2018 - Volume 142 - Issue 1 - p 9e-16e doi: 10.1097/PRS.000000000004465</li> <li>Tang, J, &amp; Arneja, J. S. Are Dog Bites a Problem of Nature</li> </ul>					
	or Nurture? Plastic Surgery, 2018;26(4), 297–298. https://doi.org/10.1177/2292550318800326					
Dr. Douglas J. Courtemanche	<ul> <li>Klassen, A. F, Riff, K. W. W, Longmire, N. M, Albert, A, Allen, G. C, Aydin, M. A, et al. (2018). Psychometric findings and normative values for the CLEFT-Q based on 2434 children and young adult patients with cleft lip and/or palate from 12 countries. CMAJ: Canadian Medical Association Journal = Journal De l'Association Medicale Canadienne, 190(15), E455–E462. http://doi.org/10.1503/cmaj.170289</li> </ul>					
	<ul> <li>Gorman J, Zbarsky SJ, Courtemanche RJM, Arneja JS, Heran MKS, Courtemanche DJ. Image guided sclerotherapy for the treatment of venous malformations. CVIR Endovascular. 2018;1(1):2. http://doi.org/10.1186/s42155-018-0009-1</li> </ul>					
	• Roller, J. M, Courtemanche, R. J. M, & Courtemanche, D. J. A Review of Validated QOL PROMs in Pediatric Plastic Surgery. Plast Reconstr Surg. 2018;142(5), 694e-707e. http://doi.org/10.1097/PRS.0000000000004841					
	<ul> <li>Shih, J. G, Knox, A. D. C, Zhygan, N, Courtemanche, D. J, Fish, J. S, &amp; Brown, M. H. Towards the Assessment of Core Procedural Competencies amongst Canadian Plastic Surgery Residents. Plast Reconstr Surg. 2018;142(6):958e- 967. http://doi.org/10.1097/PRS.00000000000005062</li> </ul>					
Dr. Erika Henkelman	<ul> <li>Tom Liu, R, Henkelman, E, Popescu, O, &amp; Yin, V. T. (2019). Nodular fasciitis: A rapidly enlarging destructive periorbital mass in an infant. American Journal of Ophthalmology Case Reports. 2019;13, 119–121. http://doi.org/10.1016/j.ajoc.2018.04.019</li> </ul>					

Name	Publication Citation				
Dr. C. Verchere	<ol> <li>Bjornson, L. A, Bucevska, M, &amp; Verchere, C. Tissue expansion in pediatric patients: a 10- year review. Journal of Pediatric Surgery. Journal of Pediatric Surgery. 2019;54(7), 1471- 1476 http://doi.org/10.1016/j.jpedsurg.2018.09.002</li> <li>Yen P, Verchere C. Donor Site Calcification and Deformation Following Microtia Repair in a Pediatric Patient With Mosaic Trisomy 22. Plast Surg Case Stud. 2019 Jan 1;5:2513826X19831721. https://doi.org/10.1177/2513826X19831721</li> <li>Chan, R, Van Slyke, A. C, Bucevska, M, &amp; Verchere, C. A 3-Year Review of an Outpatient Burn Sedation Program in a Tertiary Burn Care Centre: Is It Safe and Does It Work? Plastic Surgery. 2019; 27(4) 305-310. https://journals.sagepub.com/doi/full/10.1177/2 292550319876663</li> </ol>				
Drs. C. Verchere and J. Arneja	1.Zhang ZZ, Haddock C, Verchere C, Arneja JS, Skarsgard ED. Management of narrow stalked giant omphalocele using tissue expansion, staged closure, and amnion preservation technique. Journal of Pediatric Surgery Case Reports. 2019 Dec 1;51:101311. https://doi.org/10.1016/j.epsc.2019.101311				
Dr. S. Hynes	<ol> <li>Meuli, M, Hartmann-Fritsch, F, Hüging, M, Marino, D, Saglini, M, Hynes, S, et al. (2019). A Cultured Autologous Dermo-epidermal Skin Substitute for Full-Thickness Skin Defects: A Phase I, Open, Prospective Clinical Trial in Children. Plastic and Reconstructive Surgery, 144(1), 188–198. http://doi.org/10.1097/PRS.000000000000574 6</li> </ol>				

Name	Publication Citation 1. Wan M, Zhang JX, Ding Y, Jin Y, Bedford J, Nagarajan M, Bucevska M, Courtemanche DJ, Arneja JS. High-Risk Plastic Surgery: An Analysis of 108,303 Cases From the America College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP) Plastic Surgery. Plastic Surgery. 2020; 28(1), 57-66. (Online first Oct, 30, 2019) https://doi.org/10.1177/2292550319880921				
Dr. J. Arneja					
Dr. D. J. Courtemanche	<ol> <li>Moxham LMR, Chadha NK, Courtemanche DJ. Is there a role for computed tomography scanning in microtia with complete aural atresia to rule out cholesteatoma? Int J Pediatr Otorhinolaryngol. 2019 Nov;126:109610. https://doi.org/10.1016/j.ijporl.2019.109610</li> <li>Leung, L. T. F, Loock, C. A, Courtemanche, R, &amp; Courtemanche, D. J. (2019). A Cross- Sectional Analysis of the BC Children's Hospital Cleft Palate Program Waitlist. Plastic Surgery, 98(7), 1-8. http://doi.org/10.1177/2292550319876664</li> <li>Wong Riff KWY, Tsangaris E, Forrest CR, Goodacre T, Longmire NM, Allen G, et al (Courtemanche DJ). CLEFT-Q: Detecting Differences in Outcomes among 2434 Patients with Varying Cleft Types. Plast Reconstr Surg. 2019;144(1):78e-88e. doi: 10.1097/PRS.000000000005723.</li> <li>Boroditsky M, Courtemanche R, Courtemanche D, Robertson S, Loock C. Taking Steps to Improve Care and Planning for Patients in British Columbia with 22q11.2. BCMJ. 62(2):54-60, March 2020.</li> </ol>				

### **INITIATIVES IN PROGRESS**

# 2018-2020

# All of the investigators have multiple research projects in progress.



# DIVISION OF PEDIATRIC SURGERY



#### Pediatric Surgery 2018-2020

### **FACULTY MEMBERS**

# 2018-2020



Dr. Robert Baird



Dr. Geoffrey K. Blair (retired from clinical practice June 2018)



Dr. Sonia A. **Butterworth** 



Dr. Hannah G. Piper



Dr. Erik D. Skarsgard Dr. Eric M. Webber Surgeon-in-Chief



Division Head

### **STAFF MEMBERS**

Ms. Christine Adamson Ms. Amie Nowak Mr. Thomas Coules Ms. Bindy Sahota Ms. Michelle Wojcik Ms. Robyn Walker Ms. Jill Haynes Ms. Susan Myhre



# 2018-2019

#### FELLOWS SUPERVISED

AlGhalya AlMaawali Candace Haddock Arlene Nakanwagi Arash Safavi Anne Shikanda

#### RESIDENTS SUPERVISED

#### **GENERAL SURGERY**

Quinn Gentles Annie Lalande Emily McKay Quinn Parker Martha Talbot Annie Wang Ted Wu

#### **PEDIATRICS**

Katrina Assen Elise Van Brummelen Mitchell Canes Audrea Chen Alyssa De Luca Carson Gill Alexandra Gustafson Katherine Johnson Angela Maccan Dalal Mohammad Rose Shumiatcher James Toft

RESIDENTS SUPERVISED (cont'd)	<b>PLASTIC SURGERY</b> Rihab Al-Lawati Annie Wang Zach Zang
STUDENTS	Sophie Carr, FLEX Student Damon Dhillon, FLEX Student Katie LaRusso, PhD Candidate Francesca Peters, FLEX Student August Pierik, FLEX Student & Summer Studentship Researcher Jessica Que, FLEX Student & BCCHRI Summer Researcher Michaela Skarlicki, Dietetics Student Etienne St. Louis, PhD Candidate Tongtong Zhai, Undergraduate Co-op Student

# 2018-2019

#### Lectures/Presentations

Erik Skarsgard	<ol> <li>Keynote Address: The Value of Patient Registries in Advancing Care for Surgical Birth Defects. 10th Annual Children's Hospital Neonatal Consortium Annual Symposium. Columbus, OH. October 22, 2018.</li> <li>Presidential Address: Now comfortably seated with the adults. 50th Annual Meeting of the Canadian Association of Pediatric Surgeons, Toronto, ON, Canada. September 25, 2018.</li> <li>Invited panelist: Giant Omphaloceles: Overview, Physiological Sequelae and the Dilemma of Surgical Management, The Hendren Project International Webinar. June 29, 2018.</li> </ol>
Hannah Piper	<ul> <li>18/Apr Pediatrics academic half day – Hirschsprung disease</li> <li>18/May Pediatric surgery academic half day – miscellaneous endocrine tumors</li> <li>18/Jun Pediatric surgery oral exam session – critical care/ECMO</li> <li>18/Jul Summer student research program – how to write an abstract</li> <li>18/Sep Pediatric surgery academic half day – central venous catheters</li> <li>18/Oct Pediatric surgery academic half day – intestinal atresia</li> <li>18/Nov Pediatric surgery academic half day – intestinal failure</li> <li>18/Nov Clinical Associate education day – necrotizing enterocolitis</li> <li>19/Jan Pediatric surgery academic half day – choledochal cyst and gallbladder disease</li> <li>19/Jan Nursing academic day – abdominal pain</li> <li>19/Apr Pediatric surgery academic half day – gastroesophageal reflux disease</li> </ul>

	Lectures/Presentations
Hannah Piper	Also, twice monthly teaching session about various pediatric surgery topics for third year medical students
Sonia Butterworth	<ol> <li>Advanced Technical Skills Lab. Foundations. April 11, 2018</li> <li>Pediatric Trauma. Foundations. May 16, 2018</li> <li>Head &amp; Neck, Tumors. Senior AHD. Foundations. June 21, 2018</li> <li>Mini CRASH. Foundations. July 11, 18, 25, 2018</li> <li>Pediatric Surgery. General Surgery Half Day. GI Bleeding (Meckels/duplication). September 18, 2018</li> <li>CRASH orientation. Foundations. September 24, 2018</li> <li>CRASH orientation. Foundations. September 24, 2018</li> <li>Advanced Technical Skills lab. CRASH, October 4, 2018</li> <li>Advanced Technical Skills lab. CRASH, October 4, 2018</li> <li>Leadership in the OR &amp; Surgical Safety. CRASH, October 9, 2018</li> <li>Bedside teaching. CRASH, October 9, 2018</li> <li>POEM. CRASH, October 11, 2018</li> <li>POEM. CRASH, October 12, 2018</li> <li>Topic: Death Disclosure. Foundations. October 24, 2018</li> <li>Poetiatric Surgery. General Surgery Half Day, Meconium Disease, October 9, 2018</li> <li>Pediatric GI Academic Rounds. EA/TEF. November 20, 2018</li> <li>Pediatric Surgery. General Surgery Half Day. Intussusception. December 20, 2018</li> <li>Pediatric Surgery. General Surgery Half Day. Intussusception. December 20, 2018</li> <li>Pediatric Surgery. General Surgery Half Day. Biliary Atresia, March 5, 2019</li> <li>ATLS Course Director 2018</li> </ol>

# 2019-2020

#### FELLOWS SUPERVISED

AlGhalya AlMaawali Candace Haddock Arlene Nakanwagi Arash Safavi Anne Shikanda

#### RESIDENTS SUPERVISED

#### **GENERAL SURGERY**

Karan D'Souza Caroline Huynh Nicolle Kloos Annie Lalande Azalea Lehndorff Jessica Lie Daphne Lu Martina Parapini Martha Talbot Katelyn Tang Kadhim Taqu

#### PLASTIC SURGERY

Ahmed Al-Hosni Mike Carr Paige Knight

# 2019-2020

RESIDENTS SUPERVISED	PEDIATRICS
(cont'd)	Brittany Boorman
	Jeff Chen
	Riley Chen-Mack
	Erin Coates
	Megan Cox
	Basil Kadoura
	Ariane L'Ecuyer
	Nolan Lee
	Caitlin Marchak
	Frances Morin
	Kaie Rosborough
	Sarah Silverberg
	Matthew Smith

#### STUDENTS SUPERVISED

Sophie Carr, FLEX Student Damon Dhillon, FLEX Student Katie LaRusso, PhD Candidate Francesca Peters, FLEX Student August Pierik, FLEX Student & Summer Studentship Researcher Jessica Que, FLEX Student & BCCHRI Summer Researcher Michaela Skarlicki, Dietetics Student Etienne St. Louis, PhD Candidate Tongtong Zhai, Undergraduate Co-op Student

	Lectures/Presentations				
Erik Skarsgard	1.Invited panelist: PS127: <u>Current Trends in</u> <u>Treatment of Congenital Diaphragmatic Hernia</u> <u>(CDH)</u> . American College of Surgeons Clinical Congress. San Francisco, CA. October 28, 2019.				
Hannah Piper	<ul> <li>19/May Pediatric surgery academic half day – liver tumors</li> <li>19/July BC Children's Hospital Research Institute Summer</li> <li>Student Program – strategies for a career in translational research</li> <li>19/Aug Pediatric surgery academic half day – nutrition for pediatric surgical patients</li> <li>19/Oct Pediatric surgery academic half day – small intestinal atresia</li> <li>19/Nov Pediatric surgery academic half day - intestinal rehabilitation</li> <li>20/Jan Pediatric surgery academic half day – anorectal malformations</li> <li>20/Mar Pediatric surgery academic half day - hepatoblastoma</li> </ul>				
Sonia Butterworth	<ol> <li>Pediatric Surgery. General Surgery Half Day. Renal Masses. April 9, 2019</li> <li>Thoracic Surgery Academic Rounds. EA/TEF. May 17, 2019</li> <li>Surgical Foundations. Safety and Conduct of a Procedure. February 20, 2019</li> <li>Pediatric Surgery. General Surgery Half Day. Testicular Malposition , June 11, 2019</li> <li>CBD: Why, What and How. UBC Geriatric Medicine. April 23, 2019</li> <li>CBME at UBC: Updates, changes &amp; Resources for Faculty and Residents. CBME PGME Retreat April 23, 2019</li> </ol>				

# 2019-2020

#### Lectures/Presentations

#### Sonia 1. Accreditation at UBC. Program Director's Workshop. May 15, 2019 **Butterworth** 2. Butterworth. Improving Emergency OR Access: Update and Next Steps. Surgical Suites Grand Grounds. Vancouver, BC. April 16, 2019 3. Butterworth. Introduction to Surgical Subspecialties (Pediatric Surgery). Vancouver Summer Program. June 25, 2019. Vancouver, BC 4. Butterworth. MedSchool 101. St George's School. August 8,2019 5. Pediatric Surgery. Testicular Malposition, June 2019 6. ATLS Course Director, September 2019 7. Pediatric Surgery. GI Bleed. September 2019 8. Pediatric Surgery. Intussusception. December 2019 9. Congenital Cystic Lung Lesions. Pediatric Surgery Fellow's session. Feb 11, 2020



### SCHOLARLY & PROFESSIONAL 2018-2020 ACTIVITIES

GRANTING AGENCY	TITLE	\$ PER YEAR	YEAR	PI	CO-PI
Evidence to innovation E2i microgrant	A prospective evaluation of non-operative treatments for gastrocutaneous fistulate in children	\$3,000	x1	Baird	None
Evidence to innovation E2i microgrant	Advancing Surgical Care of the Neonate with Sacrococcygeal Teratoma: Evidence, Action, Advocacy	\$3,500	x1	Baird	Duffy
Canadian Association of Pediatric Surgeons	The relationship between the intestinal microbiota and absorption after small bowel resection	\$10,000	2018- 2020	Piper	Silverman
ASPEN Rhoads Foundation Grant	Targeted probiotic therapy to improve the gut microbiota and growth in children with short bowel syndrome	\$25,000	2017- 2019	Piper	Koh

\*\*All of the above grants were obtained competitively as opposed to non-competitively\*\*



### SCHOLARLY & PROFESSIONAL 2018-2019 ACTIVITIES CON'T

Robert Baird	• The Hendren Project - Gastroschisis
Hannah Piper	<ul> <li>Grand Rounds, Department of Pediatrics, UBC,</li> <li>Pediatric Intestinal Rehabilitation: What's New?</li> <li>OPSEI Rounds, BC Children's Hospital, The role of the gut microbiota in short bowel syndrome</li> <li>Grand Rounds, Department of Surgery, UBC,</li> <li>Intestinal Rehabilitation : What Surgeons Need to Know</li> <li>Grant Reviewer, Faculty of Medicine, UBC, Summer Student Research Program</li> </ul>
	<ul> <li>Grant Reviewer, Canadian Association of Pediatric Surgeons</li> <li>Grant Reviewer, American Society for Parenteral and Enteral Nutrition, Rhoads Research Foundation</li> <li>Grant Reviewer, Faculty of Medicine Early Career Grants, UBC</li> </ul>
	<ul> <li>Manuscript review: Journal of Pediatric Surgery, Journal of Parenteral and Enteral Nutrition, Journal of Surgical Research, Journal of Pediatric Gastroenterology and Nutrition</li> </ul>
	<ul> <li>Clinical guidelines for optimizing intestinal adaptation, American Society for Parenteral and Enteral Nutrition, invited author</li> </ul>
	<ul> <li>Moderator, Pediatric/Neonatal Session: American Society for Parenteral and Enteral Nutrition, Nutrition Science &amp; Practice Conference</li> </ul>
	<ul> <li>Moderator, Scientific Session: Quality and Outcomes, Canadian Association of Pediatric Surgeons</li> </ul>
	<ul> <li>Expert Panel Discussant: Central Venous Catheter Management, Pediatric Intestinal Failure and Rehabilitation Symposium</li> </ul>

### SCHOLARLY & PROFESSIONAL 2018-2019 ACTIVITIES CON'T

Hannah Piper	<ul> <li>McLaughlin C*, Gonzalez-Hernandez J, Bennett M, Piper HG. Academic Surgical Congress. <i>Pediatric</i> breast masses: should they be excised? Oral presentation (2018)</li> <li>Casson C, Nguyen V, Nayak P, Channabasappa N, Berris K, Panczuk J, Bhiladvala C, Dasgupta T, Piper HG. Pediatric Intestinal Failure and Rehabilitation Symposium. A comparison of Smoflipid and Intralipid in the early management of infants with intestinal failure. Oral presentation (2018)</li> <li>Piper HG, Nguyen V, Channabasappa N, Coughlin L, Koh AY. Pediatric Intestinal Failure and Rehabilitation Symposium. Intestinal microbial dysbiosis characterized by decreased bile acid transforming bacteria in infants with short bowel syndrome and hepatic cholestasis. Poster presentation (2018)</li> <li>Piper HG, Nguyen V, Channabasappa N, Koh AY. W.B &amp; M.H. Chung Research Day. Gut microbial dysbiosis characterized by decreased bile acid transforming bacteria in infants with short bowel syndrome and hepatic cholestasis. Oral presentation (2018)</li> </ul>
Sonia Butterworth	<ol> <li>Book Chapter:         <ul> <li>a. P Hamilton, S Butterworth, P D'Alessandro, G Frager, S Lena, J Rezmovitz, A Skorzewska, LJ Nelles. "The use of theatre with medical residents" in <u>The Health Humanities in Post-Graduate Medical</u> <u>Education- A Source Book</u>. Allan Peterkin &amp; Anna Skorzewska, Editors. Oxford University</li> <li>Canadian Association of Pediatric Surgeons, Publication committee, Chair,</li> <li>Canadian Association of Pediatric Surgeons, Council member</li> <li>Royal College of Physicians and Surgeons of Canada, Specialty Committee, Surgical Foundations</li> <li>Royal College of Physicians and Surgeons of Canada, ePortfolio Super user Group. CBD Leads Group</li> </ul> </li> </ol>
### SCHOLARLY & PROFESSIONAL 2018-2019 **ACTIVITIES CON'T**

Sonia	Invited:
Butterworth	<ol> <li>National Defense, Canadian Forces Trauma Training Centre (West), Pediatric Trauma –June 13, 2018</li> <li>National Defense, Canadian Forces Trauma Training Centre (West), Pediatric Trauma –September 25,2018</li> <li>CBME Implementation in Surgery: Updates and Town Hall. Department of Surgery Grans Rounds. January 9, 2019</li> <li>CBD: Why, What and How. UBC Radiology. January 16, 2019</li> </ol>



Robert Baird	• The Hendren Project - Gastroschisis
Hannah Piper	<ul> <li>Grand Rounds, Department of Pediatrics, UBC,</li> <li>Pediatric Intestinal Rehabilitation: What's New?</li> <li>OPSEI Rounds, BC Children's Hospital, The role of the gut microbiota in short bowel syndrome</li> <li>Grand Rounds, Department of Surgery, UBC,</li> <li>Intestinal Rehabilitation : What Surgeons Need to Know</li> <li>Grant Reviewer, Faculty of Medicine, UBC, Summer Student Research Program</li> <li>Grant Reviewer, Canadian Association of Pediatric Surgeons</li> <li>Grant Reviewer, American Society for Parenteral and Enteral Nutrition, Rhoads Research Foundation</li> <li>Grant Reviewer, Faculty of Medicine Early Career</li> </ul>
	<ul> <li>Grants, UBC</li> <li>Manuscript review: Journal of Pediatric Surgery, Journal of Parenteral and Enteral Nutrition, Journal of Surgical Research, Journal of Pediatric Gastroenterology and Nutrition</li> </ul>
	<ul> <li>Clinical guidelines for optimizing intestinal adaptation, American Society for Parenteral and Enteral Nutrition, invited author</li> </ul>
	<ul> <li>Moderator, Pediatric/Neonatal Session: American Society for Parenteral and Enteral Nutrition, Nutrition Science &amp; Practice Conference</li> </ul>
	<ul> <li>Moderator, Scientific Session: Quality and Outcomes, Canadian Association of Pediatric Surgeons</li> </ul>
	<ul> <li>Expert Panel Discussant: Central Venous Catheter Management, Pediatric Intestinal Failure and Rehabilitation Symposium</li> </ul>

Hannah Piper	<ul> <li>Pierik A* and Piper HG. Office of Pediatric Surgical Evaluation and Innovation (OPSEI) Research Rounds Instructional Videos and Central Line Complications. Oral presentation (2019)</li> <li>Piper HG, Coughlin L, Channabasappa N, Koh AY. ASPEN Nutrition Science &amp; Practice Conference. Oral probiotics do not predictably change the intestinal microbiota in children with short bowel syndrome. Oral presentation (2019)</li> <li>Casson C*, Nguyen V, Nayak P, Channabasappa N, Berris K, Panczuk J, Bhiladvala C, Dasgupta T, Piper HG. American Pediatric Surgical Association. A Comparison of Smoflipid and Intralipid in the early management of infants with intestinal failure. Oral presentation (2019)</li> <li>Piper HG, Coughlin LA, Nguyen V, Channabasappa N, Koh AY. Canadian Association of Pediatric Surgeons. Stool samples can be used to characterize the microbiota of the more proximal small bowel in infants with short bowel syndrome. Oral presentation (2019)</li> <li>Que J*, Panczuk J, Piper HG. Office of Pediatric Surgical Evaluation and Innovation (OPSEI) Research Rounds. The impact of daily probiotics on necrotizing enterocolitis in very low birth weight infants. Oral presentation (2019)</li> </ul>
Sonia Butterworth	<ol> <li>Canadian Association of Pediatric Surgeons, publication committee, Chair,</li> <li>Canadian Association of Pediatric Surgeons, Council member Invited:</li> <li>CBD: Why, What and How. UBC Geriatric Medicine. April 23, 2019</li> <li>CBME at UBC: Updates, changes &amp; Resources for Faculty and Residents. CBME PGME Retreat April 23, 2019</li> <li>Accreditation at UBC. Program Director's Workshop. May 15, 2019</li> </ol>

Sonia Butterworth	<ul> <li>4. Butterworth. Improving Emergency OR Access: Update and Next Steps. Surgical Suites Grand Grounds. Vancouver, BC. April 16, 2019</li> <li>5. Butterworth. Introduction to Surgical Subspecialties (Pediatric Surgery). Vancouver Summer Program. June 25, 2019. Vancouver, BC</li> <li>6. Butterworth. MedSchool 101. St George's School. August 8, 2019</li> <li>7. Butterworth. University of Saskatchewan, Department of Surgery Annual Awards. Competency by Design: Myths, Challenges &amp; Opportunities. September 2019</li> <li>8. CASEY LINDA, DHALIWAL KEERAT, ALBERSHEIM SUSAN, BUTTERWORTH SONIA, PIPER HANNAH. NeoCHIRP: Intestinal Rehabilitation in the NICU Pediatric Intestinal Failure and Rehabilitation Symposium (Virtual conference).</li> <li>9. National Defense, Canadian Forces Trauma Training Centre (West), Pediatric Trauma –June 2019</li> <li>10. National Defense, Canadian Forces Trauma Training Centre (West), Pediatric Trauma –September 2019</li> </ul>



### 2018-2019

Ro	bert	Baird
		Dana

Development and validation of a new pediatric resuscitation and trauma outcome (PRESTO) model using the US National Trauma Data Bank. E St-Louis, D Bracco, J Hanley, T Razek, **R Baird.** Journal of pediatric surgery 53 (1), 136-140 2018

Diagnosis and management of congenital diaphragmatic hernia: a clinical practice guideline. PS Puligandla, ED Skarsgard, M Offringa, I Adatia, **R Baird**, JAM Bailey, ... CMAJ 190 (4), E103-E112 2018

*Radiation exposure and attributable cancer risk in patients with esophageal atresia.* Y Yousef, **R Baird.** Journal of pediatric gastroenterology and nutrition 66 (2), 234-238 2018

*Risk stratification in pediatric perforated appendicitis: Prospective correlation with outcomes and resource utilization.* Y Yousef, F Youssef, T Dinh, K Pandya, H Stagg, M Homsy, **R Baird**, ... Journal of pediatric surgery 53 (2), 250-255 2018

*Time to appendectomy for acute appendicitis: A systematic review.* DB Cameron, R Williams, Y Geng, A Gosain, MA Arnold, YS Guner, Baird R, et al. Journal of pediatric surgery 53 (3), 396-405 2018

Enrollment and reporting practices in pediatric general surgical randomized clinical trials: A systematic review and observational analysis. E St-Louis, M Oosenbrug, T Landry, **R Baird** Journal of pediatric surgery 53 (5), 879-884 2018

Gastrocutaneous fistulae in children—A systematic review and metaanalysis of epidemiology and treatment options. E St-Louis, N Safa, E Guadagno, **R Baird** Journal of pediatric surgery 53 (5), 946-958 2018

Experience with peritoneal thermal injury during subcutaneous endoscopically assisted ligation for pediatric inguinal hernia. E St-Louis, A Chabot, H Stagg, **R Baird** Journal of pediatric surgery 53 (5), 968-972 2018

Appropriate use of total parenteral nutrition in children with perforated appendicitis. Y Yousef, F Youssef, M Homsy, T Dinh, H Stagg, R Petroze, **R Baird**, ... Journal of Pediatric Surgery 53 (5), 991-995 2018

Robert Baird	I <i>ntrathyroidal thymic tissue in children: Avoiding unnecessary surgery.</i> E Kay-Rivest, MA Mascarella, P Puligandla, S Emil, C Saint-Martin, <b>R</b> <b>Baird</b> Journal of pediatric surgery 53 (5), 1010-1013 2018
	<i>Regarding global pediatric surgery training opportunities</i> . <b>R Baird</b> , K Pandya, DR Lal, CM Calkins, KT Oldham, A Tsai, Journal of pediatric surgery 53 (6), 1256-1258 2018
	<i>Ovarian torsion in pediatric and adolescent patients: A systematic review.</i> R Dasgupta, E Renaud, AB Goldin, <b>R Baird</b> , DB Cameron, MA Arnold, Journal of pediatric surgery 53 (7), 1387-1391 2018
	The utility of magnetic resonance imaging in the diagnosis and management of pediatric benign ovarian lesions. S Emil, F Youssef, G Arbash, <b>R Baird</b> , JM Laberge, P Puligandla, Journal of pediatric surgery 53 (10), 2013-2018 2018
	<i>Can the Pediatric Resuscitation and Trauma Outcomes Be Used to Predict In-Hospital Mortality in Injured Rwandese Children?</i> E St-Louis, RT Petroze, <b>R Baird</b> , T Razek, D Poenaru, JF Calland,Journal of the American College of Surgeons 227 (4), S127-S128 2018
	<i>Systematic reviews and meta-analytic techniques.</i> <b>R Baird</b> Seminars in Pediatric Surgery 27 (6), 338-344 2018
Eric M. Webber	Lai M, Coakley BA, <b>Webber EM</b> , Goldman RD. <i>Intussusception with cecal cyst as lead point in a child</i> . Pediatr Emerg Care, 2018 Jul;34(7):e134-e135
Erik Skarsgard	<i>Conservative Therapy for Appendicitis in Children.</i> Yamanaka S, <b>Skarsgard ED</b> , Goldman RD. Can Fam Physician 2018Aug;64(8):574- 576.
	A New Anthropometric Classification Scheme of Preoperative Nutritional Status in Children; A Retrospective Observational Cohort Study. Stey A, Ricks-Oddie J, Innis S, Rangel S, Moss RL, Hall BL, Dibbins A, <b>Skarsgard ED.</b> BMJ Paediatr Open 2018 Oct12;2(1). e000303.

Erik Skarsgard	Creation of An Enhanced Recovery After Surgery (ERAS) Guideline for Neonatal Abdominal Surgery Patients: a knowledge synthesis and consensus generation approach and protocol study. Gibb ACN, Crosby MA, McDiarmid C, Urban D, Lam JYK, Wales, PW, Brockel M, Raval M, Offringa M, <b>Skarsgard ED</b> , Wester T, Wong K, De Beer D, Nelson G, Brindle ME. BMJ Open 2018 Dec 9;8(12):e023651.
Hannah Piper	<ul> <li>McLaughlin CM*, Bennett M, Channabasappa N, Journeycake J, Piper HG. Anticoagulation results in increased line salvage for children with intestinal failure and central venous thrombosis. Journal of Pediatric Surgery, 2018; May 53(5): 1052-1055.</li> <li>Itum DS*, Oltmann SC, Choti MA, Piper HG. Access to paid parental leave for academic surgeons. Journal of Surgical Research; 2019; Jan 233: 144-148.</li> </ul>
	McLaughlin CM*, Gonzalez-Hernandez J, Bennett M, <b>Piper HG.</b> <i>Pediatric breast masses: an argument for observation</i> . J Surg Res; 2018; Aug 228: 247-252. <b>Piper HG.</b> <i>Intestinal microbiota in short bowel syndrome</i> . Semin Pediatr
	Surg. 2018; Aug 27: 223-228.



### 2019-2020

### Robert Baird

Vacuum bell treatment of pectus excavatum: an early North American experience. E St-Louis, J Miao, S Emil, **R Baird**, M Bettolli, K Montpetit, J Goyette, ... Journal of pediatric surgery 54 (1), 194-199 2019

Nebulized analgesia during laparoscopic appendectomy (NALA): A randomized triple-blind placebo controlled trial. **R Baird**, P Ingelmo, A Wei, Y Meghani, EV Perez, H Pelletier, G Auer, ... Journal of Pediatric Surgery 54 (1), 33-38 2019

Ovarian masses in the child and adolescent: an American pediatric surgical association outcomes and evidence-based practice committee systematic review. EJ Renaud, S Sømme, S Islam, DB Cameron, RL Gates, RF Williams, **R Baird**... Journal of pediatric surgery 54 (3), 369-377 2019

A systematic review of capacity assessment tools in pediatric surgery: Global Assessment in Pediatric Surgery (GAPS) Phase I. Y Yousef, E St-Louis, **R Baird**, ER Smith, E Guadagno, D St-Vil, ... Journal of Pediatric Surgery 54 (4), 831-837 2019

Management of long gap esophageal atresia: a systematic review and evidence-based guidelines from the APSA Outcomes and Evidence Based Practice Committee. **R Baird**, DR Lal, RL Ricca, KA Diefenbach, CD Downard, J Shelton, ... Journal of pediatric surgery 54 (4), 675-687 2019

Incidence and prevalence of congenital anomalies in low-and middle-income countries: A systematic review. A Toobaie, Y Yousef, S Balvardi, E St-Louis, **R Baird**, E Guadagno, ...Journal of pediatric surgery 54 (5), 1089-1093 2019

Sclerotherapy for rectal prolapse in children: A systematic review and meta-analysis. GC Hintz, VZ Zou, **R Baird** Journal of pediatric surgery 54 (5), 1083-1088 2019

Unifying children's surgery and anesthesia stakeholders across institutions and clinical disciplines: challenges and solutions from Uganda. P Kisa, DF Grabski, D Ozgediz, M Ajiko, R Aspide, **R Baird**, G Barker, ... World Journal of Surgery 43 (6), 1435-1449 2019

Robert Baird	Non-operative management of solid organ injuries in children: An American Pediatric Surgical Association Outcomes and Evidence Based Practice Committee systematic review. RL Gates, M Price, DB Cameron, S Somme, R Ricca, TA Oyetunji, <b>R</b> <b>Baird</b> , Journal of pediatric surgery 54 (8), 1519-1526 2019
	<i>The management of pilonidal disease: A systematic review.</i> J Grabowski, TA Oyetunji, AB Goldin, <b>R Baird</b> , A Gosain, DR Lal, Journal of pediatric surgery 54 (11), 2210-2221 2019
	Pediatric burn contractures in low-and lower middle-income countries: A systematic review of causes and factors affecting outcome. F Meng, KJ Zuo, A Amar-Zifkin, <b>R Baird</b> , S Cugno, D Poenaru Burns Aug;46(5):993-1004. 2019
Eric Webber	Acosta-Gualandri A, Kao KT, Wong T, <b>Webber E</b> , Armstrong L, Panagiotopoulos C. <i>Perioperative Hypotensive Crisis</i> in an Adolescent with a Pancreatic VIPoma and MEN1-Gene Variant. Horm Res Paediatr, 2019;91(4):285-289.
Erik Skarsgard	CAPS at 50. <b>Skarsgard ED.</b> Now comfortably seated with the grownups. J Pediatr Surg 2019 May;54(5):875-880.
	<i>Immediate versus staged repair of omphaloceles.</i> <b>Skarsgard</b> <b>ED</b> . Semin Pediatr Surg 2019 Apr;28(2):89-94.
	Establishing a core outcome set for treatment of uncomplicated appendicitis in children: study protocol for an international Delphi survey. Knaapen M, Hall NJ, van der Lee JH, Butcher NJ, Offringa M, Van Heurn EWE, Bakx R, Gorter RR; Paediatric Appendicitis COS development group. BMJ Open 2019 May 22;9(5):e028861.
	Abdominal Tuberculosis in an Infant Presenting with a Small Bowel Obstruction. Matettore A, Rajaprakash M, Bennett M, <b>Skarsgard</b> <b>ED</b> , Goldman RD. Pediatr Emerg Care 2019 Jul 5. doi: 10.1097/PEC.000000000001872.
	Improving Value and Access to Specialty Medical Care for Families: The Pediatric Surgery Telehealth Program. Dean P, O'Donnell M, Zhou L, <b>Skarsgard ED</b> . Can J Surg. 2019;62(6):436-441.
	Management of narrow stalked giant omphalocele using tissue expansion, staged closure, and amnion preservation technique. Zhang Z, Haddock C, Verchere C, Arneja J, <b>Skarsgard ED</b> . J Pediatr Surg Case Rep 2019;51:101311

Robert Baird	Non-operative management of solid organ injuries in children: An American Pediatric Surgical Association Outcomes and Evidence Based Practice Committee systematic review. RL Gates, M Price, DB Cameron, S Somme, R Ricca, TA Oyetunji, <b>R</b> <b>Baird</b> , Journal of pediatric surgery 54 (8), 1519-1526 2019
	<i>The management of pilonidal disease: A systematic review.</i> J Grabowski, TA Oyetunji, AB Goldin, <b>R Baird</b> , A Gosain, DR Lal, Journal of pediatric surgery 54 (11), 2210-2221 2019
	Pediatric burn contractures in low-and lower middle-income countries: A systematic review of causes and factors affecting outcome. F Meng, KJ Zuo, A Amar-Zifkin, <b>R Baird</b> , S Cugno, D Poenaru Burns Aug;46(5):993-1004. 2019
Eric Webber	Acosta-Gualandri A, Kao KT, Wong T, <b>Webber E</b> , Armstrong L, Panagiotopoulos C. <i>Perioperative Hypotensive Crisis</i> in an Adolescent with a Pancreatic VIPoma and MEN1-Gene Variant. Horm Res Paediatr, 2019;91(4):285-289.
Erik Skarsgard	CAPS at 50. <b>Skarsgard ED.</b> Now comfortably seated with the grownups. J Pediatr Surg 2019 May;54(5):875-880.
	<i>Immediate versus staged repair of omphaloceles.</i> <b>Skarsgard</b> <b>ED</b> . Semin Pediatr Surg 2019 Apr;28(2):89-94.
	Establishing a core outcome set for treatment of uncomplicated appendicitis in children: study protocol for an international Delphi survey. Knaapen M, Hall NJ, van der Lee JH, Butcher NJ, Offringa M, Van Heurn EWE, Bakx R, Gorter RR; Paediatric Appendicitis COS development group. BMJ Open 2019 May 22;9(5):e028861.
	Abdominal Tuberculosis in an Infant Presenting with a Small Bowel Obstruction. Matettore A, Rajaprakash M, Bennett M, <b>Skarsgard</b> <b>ED</b> , Goldman RD. Pediatr Emerg Care 2019 Jul 5. doi: 10.1097/PEC.000000000001872.
	Improving Value and Access to Specialty Medical Care for Families: The Pediatric Surgery Telehealth Program. Dean P, O'Donnell M, Zhou L, <b>Skarsgard ED</b> . Can J Surg. 2019;62(6):436-441.
	Management of narrow stalked giant omphalocele using tissue expansion, staged closure, and amnion preservation technique. Zhang Z, Haddock C, Verchere C, Arneja J, <b>Skarsgard ED</b> . J Pediatr Surg Case Rep 2019;51:101311

### 2019-2020

### Hannah Piper

Casson C\*, Nguyen V, Nayak P, Channabasappa N, Berris K, Panczuk J, Bhiladvala C, Dasgupta T, **Piper HG**. *A comparison of Smoflipid and Intralipid in the early management of infants with intestinal failure*. Journal of Pediatric Surgery. 2020; Jan 55: 153-157.

**Piper HG**, Coughlin LA, Hussain S, Nguyen V, Channabasappa N, Koh AY. *The impact of Lactobacillus probiotics on the gut microbiota in children with short bowel syndrome*. Journal of Surgical Research. 2020; Mar 25: 112-118.

## HIGHLIGHTS & ACHIEVEMENTS 2019-2020

### **Robert Baird**

Program Director - Full accredation; 2020 CAPS (Canadian Association of Pediatric Surgery)



### **COMMITEE PARTICIPATION**

NAME	COMMITTEE
Robert Baird	Trauma Steering Committee, BC Children's Hospital - co-chair
	Resident Education Committee, Pediatric Surgery, BC Children's Hospital - chair
	American Pediatric Surgical Association, Outcomes and Evidence Based Practice Committee - vice chair
	American Pediatric Surgical Association, Quality and Safety Committee - member
Eric M. Webber	Medical Advisory Committee, Children's and Women's Health Centre of BC
	Vascular Access Committee, Children's and Women's Health Centre of BC
	Patient Centred Care Experience Steering Committee, Children's and Women's Health Centre of BC
	Surgical Services Advisory Committee, BC Children's Hospital
	Royal College of Physicians and Surgeons of Canada, General Surgery Specialty Committee
	Royal College of Physicians and Surgeons of Canada, Specialty Standards Review Committee
	Royal College of Physicians and Surgeons of Canada, Surgical Foundations Advisory Committee
	Royal College of Physicians and Surgeons of Canada, General Surgery Examination Committee
	Royal College of Physicians and Surgeons of Canada, Pediatric Surgery Specialty Committee
	College of Family Physicians of Canada: Essential Surgical Skills Working Group
	Pacific Association of Pediatric Surgeons Board of Directors
	Pacific Association of Pediatric Surgeons Publications Committee

### **COMMITEE PARTICIPATION**

NAME	COMMITTEE
Erik Skarsgard	Surgeon in Chief, BC Children's Hospital (2012-)
	Chair, Search Committee for Chief of Pediatric Dentistry (2018)
	Chief of Pediatric Anesthesia (2019)
	Board member, BC Children's Hospital Foundation (2012-)
	Member, Medical Advisory Committee, BC Children's Hospital (2006-)
	Member, Surgical Services Advisory Committee, BC Children's Hospital (2004-)
	Chair, Institute Advisory Board, Institute of Human Development, Child and Youth Health, Canadian Institutes of Health Research (2016-18)
	Member, American College of Surgeons Advisory Council on Pediatric Surgery (2012-2018)
	President, Canadian Association of Pediatric Surgeons (2016-18)
	Past-President, Canadian Association of Pediatric Surgeons (2016-18)
	Professional Development Committee, American Association of Pediatric Surgeons (2017-)
	Delivery of Surgical Care Committee, American Academy of Pediatrics (Surgical Section) (2018-)
Hannah Piper	Neonatal Intensive Care Unit Nutrition Committee, Children's and Women's Health Centre of BC
	Nutrition Committee, Children's and Women's Health Centre of BC
	Pharmacy, Therapeutics & Nutrition Committee, Children's and Women's Health Centre of BC
	Chair, Clinical Competency Committee, Division of Pediatric Surgery, UBC

## **COMMITEE PARTICIPATION**

### 2018-2020

### NAME

Hannah Piper

### COMMITTEE

Education Committee, American Pediatric Surgical Association

Research Committee, Canadian Association of Pediatric Surgeons

Publication Committee, Canadian Association of Pediatric Surgeons

Canadian Consortium for Research in Pediatric Surgery, site codirector for BC Children's Hospital

Abstract Committee, American Society for Parenteral and Enteral Nutrition

Education and Professional Development Committee, American Society for Parenteral and Enteral Nutrition



## **INITIATIVES IN PROGRESS**

### **ROBERT BAIRD**

A Prospective evaluation of non-operative treatments for gastrocutaneous fistulae in children

### HANNAH PIPER

Joint NICU initiative looking at the use of analgesia for babies with gastroschisis and standardization of care

Joint initiative with NICU looking at the use of GJ feeding tubes and standardization of care to minimize morbidity (abstract submitted)

Creation of teaching video series for ostomy care

Site lead for North American multi-site quality of life study in children with intestinal failure

Co-PI on research study looking at the microbiota in babies in the setting of enteral deprivation

Co-PI on research study looking at the immune system in the neonatal gut

Research study looking at timing of weaning from PN in babies with intestinal failure with and without colon in continuity (abstract submitted)

Research study looking at the use of probiotics in the NICU for prevention of necrotizing enterocolitis (manuscript submitted)

Research study looking at the use of instructional videos for reducing central-line associated complications in children on home parenteral nutrition (manuscript submitted)

Research study looking at a longitudinal assessment of the intestinal microbiota, nutrition and markers of inflammation in children with intestinal failure.

### HIGHLIGHTS & ACHIEVEMENTS 2018-2020

### **Hannah Piper**

Awards: Abstract with Distinction, ASPEN Nutrition Science and PracticeConference. The Use of Urine Sodium to Creatinine Ratio as a Measure of Sodium Deficiency in Children After Intestinal Resection

> Abstract with Distinction, ASPEN Nutrition Science and Practice Conference. The Impact of Daily Probiotics Necrotizing Enterocolitis in Very Low Birth Weight Infants

> Poster with Distinction, Pediatric Intestinal Failure and Rehabilitation Symposium. The Utility of an Instructional Video Series in Reducing Central Venous Catheter Complications in Children with Intestinal Failure

**Leadership** Surgical Director BC Children's Intestinal Rehabilitation Program

**Positions:** Co-Chair of Children's Intestinal Rehabilitation Program Network (includes programs from Vancouver, Edmonton, Calgary, Winnipeg and Saskatoon)

**CME:** Pediatric Colorectal and Pelvic Reconstruction Course, Nationwide Children's Hospital





An agency of the Provincial Health Services Authority

## **OTHER ACHIEVEMENTS**

### Sonia Butterworth

1. Dr. Patricia Clugston Memorial Award for Excellence in Resident Teaching, Resident Doctors of BC

- 2. Promoted to Clinical Professor
- 3. Service to Hospital:

a. BC Children's Hospital Children's Intestinal Rehabilitation Program i. BC Children's Hospital NICU Complex Nutrition Committee

- 4. Service to University:
  - a. Program Director, Surgical Foundations
  - b. Postgraduate Internal Review Subcommittee
  - c. Surgical Foundations Residency Education Committee
  - d. Pediatric General Surgery Residency Education Committee
  - e. Department of Surgery Clinical Appointment and Promotion Committee
  - f. Department of Surgery Executive Committee
  - g. Faculty Residency Committee
  - h. Faculty Residency Executive Committee
  - i. CESEI Steering Committee
  - j. CBME lead, PGME
- 5. YWCA Nominee, Women of Distinction, Education and Leadership. 2019
- 6. Service to Hospital:
  - a. BC Children's Hospital Children's Intestinal Rehabilitation Program
  - b. NICU Complex Nutrition team
- 7. Service to University:
  - a. Assistant Dean, PGME
  - b. Postgraduate Internal Review Subcommittee
  - c. Pediatric General Surgery Residency Education Committee
  - d. Faculty Residency Committee
  - e. Faculty Residency Executive Committee



# DIVISION OF PEDIATRIC UROLOGY



### **FACULTY MEMBERS**

## 2018-2020



Dr. Andrew E MacNeily, Division Head



Dr. Kourosh Afshar

Dr. John ST Masterson Dr. Soojin Kim	Dr. John ST Dr. Sooiin Kim

## **STAFF MEMBERS**

- Ms. Heidi Scott, Pediatric Urology Nurse Clinician
- Dr. Maryam Noaparast, Pediatric Urology Research Associate
- Ms. Danielle Baghii, Administrative Assistant

2018-2020

• Ms. Maria Chaperon, Administrative Assistant

## HIGHLIGHTS & ACHIEVEMENTS 2018-2020

As the only pediatric urology service in British Columbia, the Division of Pediatric Urology at BC Children's performed more than 1600 surgical procedures and cared for over 10,000 children in our ambulatory clinic during the period of this report. The 2 years realized many successes for our team, which are detailed in this report.

notable highlights include the following: We successfully Some recruited a fourth faculty member in August 2019. Dr Soojin Kim was recruited following a two year Pediatric Urology Fellowship at Luri NorthWestern University. Childrens Hospital, She is currently completing a Master's Degree in Health Services Research. Dr. Afshar continues in his position of Associate Chief of Surgery - Quality and Safety, an important administrative position in our organization. He also continues in his role as BCCH Surgeon Champion for National Surgical Quality Improvement Program (NSQIP). Dr. MacNeily recently completed his six-year tenure as Chair of the Royal College Specialty committee in Urology, and continues on as the 2020-22 Royal College Chair: AFC diploma Committee in Pediatric Urology. He continues as Vice Chair Education and Clinical Affairs for the Department of Urologic Sciences, as well as a member of the executive and President of the Canadian Urological Association.

#### Awards

Dr. Kourosh Afshar

- Department of Urologic Sciences Undergraduate Teacher of the Year (2018-19)
- BC Children's and Women's Hospital Medical Staff Award for Championship in Safety, Quality of care and Value (June 2018)

FELLOWS SUPERVISED	Phllis Kisa		
RESIDENTS SUPERVISED	Colin Lundeen Miles Mannis Connor Forbes Sam Ghavimi Lisa Ho Drew Philips Matt Ho Khat Aminoltejari	Dave Ho Samir Bi Cyrus Ch Mark Da Davide O Anthony Drew Ph Robin M	idner neroudi widek Cina / Emmott nillips
STUDENTS           Subervise	2018 April - 2018 Dec Zerr, Kelly Dahiya, Anita Van Ommen, Clara *Ng, Jonathan *McLellan, Jeffrey Liao, Meng Wen (Donna) Li, Cheng (Kim) Yen, Paul Pui-Hsin Xu, Hong Zhao, Eric *Bein, Magnus Chiu, Clare Norman, Stephanie Laura Wong, Julie *Wang, Betty Rosenkrantz, Maya Shankar, Radhika *Goyette, Brina *Courage, Emily *Runalls, Shonah *Tsang, Brian *Kim, Jin Kyu (Justin) *Forster, Adam *Elliott, Katie *Kent, Sarah *Jayalath, Viranda *Wong, Carmen *Mawson Katherine	2019 Jan - 2019 Dec Thejoe, Maichael Kalkat, Simaran Wang, Mannan Mitchell, Devon Dahiya, MonicaK ANDIAH, Joshua SAGORIN, Zach LU-CLEARY, Destiny AMIRIE, Muhamed LUAN, Yi Lei (Eva) PENTY, Nora KRAMER, Adam HUNT, Giselle FOWLER, Claire SMYTHIES, Carrie Wong, Julie SPOONER, Jesse Aalok VS_Shah	2019 Jan - 2020 March PIERIK, August JAVADIAN, Farnaz CLAYTON, Frances ADL GOLCHIN, Hajir DAYAN, Zev PERRY, Taylor HAMEL, Emily PENNER, Carlie RODIN, Isaac CHEEMA, Bavenjit LIM, Stellar Smith, Haley YEUNG, Phillip CHAN, Justin Black, Anna (2021) SURESH, Shwetha AZZOPARDI, Paul BOHM, Alexandra VONDERWALDE, Ilan (ilan) CHAN, Gabriel MANN, Gurkiran GAERTNER, Tara CHAN, Justin Lauren Adye-White Taryn Zabolotniuk Lauren Adye-White

### 2018-2020

### NON-CLINICAL STUDENT SUPERVISION

Aishwi Roshan: OPSEI summer student research project, QA review of Dorsal Lumbotomy partial nephrectomies at BCCH

Lindsay Kastelic: UBC Summer Student Research Program (SSRP) supervisor, UBC Flexible Enhanced Learning (FLEX) program supervisor

Amy Antonson: BCCH Summer Student Research Program supervisor, UBC Flexible Enhanced Learning (FLEX) program supervisor

Peter Chae: UBC Summer Work Learn program supervisor, UBC Directed Studies (ISCI 448) supervisor

Anna Tse: research project supervisor

Melody Tsai: research project supervisor

Justin Chan: research project supervisor

2018-2020

#### **SUPERVISOR: Kourosh Afshar**

			_	
IIN	DED	GDA		ATE
		UNF		

STUDENT NAME	DEGREE	START	FINISH	SUPERVISORY ROLE	ТОРІС
Alexander Danechi	BSc	July 2019	Sept 2019	Primary Supervisor	Predictors of complications in renal transplant
Fiona Majendie	BSc	May 2018	Sept 2019	Primary Supervisor	Development of online database for Spinal Cord Patients

#### **MD UNDERGRADUATE**

STUDENT NAME	DEGREE	START	FINISH	SUPERVISORY ROLE	ТОРІС
Jagdeep Gill	MD	July 2019	Dec 2020	Primary Supervisor	Meta-analysis of NSAIDs effects in renal colic
Gina Peck	MD	July 2019	Mar 2020	Primary Supervisor	Effects of Standardized pathway in Urgent manangement of testicular torsion
Sophie Carr	MD	Nov 2018	Nov 2019	Primary Supervisor	Development of Evidence based neonatal operative guidelines
Andrew Amenyogbe	MD	Dec 2017	Dec 2018	Primary Supervisor	Use of Urodynamics in Prediction of clinical outcomes in children with Lipomenigocele
Mannan Wang	Flex Program	Oct 2017	Jun 2018	Primary Supervisor	Development of evidence based guidelines for management of bladder dysfunction in children
Julie Wong	Flex Program	Apr 2017	Apr 2018	Co-supervisor	Effect of Patient transfer on Surgical Site Infection
MASTERS STUDE	NT				

STUDENT NAME	DEGREE	START	FINISH	SUPERVISORY ROLE	ТОРІС
Baharak Tolouei	MS	July 2019	Dec 2020	Primary Supervisor	Masters in Surgery

#### Name

Dr Andrew MacNeily

#### Lectures/Presentations

Visiting Professor: Division of Urology Universite de Montreal, Montreal PQ April 19 2018. Presented 3 lectures, presided over academic half day.

The Prevalance of Neuropsychiatric Conditions in Patients presenting with Bowel and Bladder Dysfunction" Presented to the Pediatric Urologists of Canada Halifax Nova Scotia June 2018.

Grand Rounds: UBC Dept of PM&R: "Fancy operations with fancy complications" Feb 2019.

Victoria Distinguished Lecture Series : "Urology Residency Training in the era of Competency Based Medical Education." Victoria BC May 2019.

BC Urological Society: "CUA Presidential Update" Vancouver BC Oct 2019.

Indian Society for Pediatric Urology: Performed two live telecast surgeries, gave one lecture."Fancy Operations with Fancy Complications" Delhi India Oct 2019.

Roshan A, MacNeily AE: Dorsal Lumbotomy for Pediatric Upper Pole Heminephrectomy: Back (door) to the Future? Northwest Urological Society. Vancouver BC Feb 2020.

Best Presentation – Pediatric Urologists of Canada Halifax Nova Scotia June 2018MacNeily AE, Afshar K, Stewart E: "The Prevalance of Neuropsychiatric Conditions in Pediatric Patients Presenting with Bowel and Bladder Dysfunction" Presented to the Pediatric Urologists of Canada Halifax Nova Scotia June 2018.

Name	Lectures/Presentations
Dr Soojin Kim	Ridge Meadow Hospital Grand Round (Oct 13, 2020): The Great from the Mediocre: Not to Fail Less, but to Rescue More
	BCCHR Summer Student Research Program (SSRP) Faculty Presenter (Jun 17, 2020), Global Health: "Think Globally, Act Locally"
	NWUS Presentation (Feb 8, 2020), Global Health: "Think Globally, Act Locally"
	OPSEI Grand Round (Dec 3, 2019), The Great from the Mediocre: Not to Fail Less, but to Rescue More
	BCUS Presentation (Oct 19, 2019), The Great from the Mediocre: Not to Fail Less, but to Rescue More

#### Name

Dr K Afshar

#### Lectures/Presentations

#### **Visiting Lecturer**

- Department of Psychiatry UBC/BC Children's Hospital Rounds: Neuropsychiatric Disorders and Bladder Dysfunction March 2020.
- Department of Pediatric Emergency Medicine, Academic day: Management of acute scrotum. Dec 2019.
- Department of Pediatric Surgery Academic Rounds: Bladder Exstrophy May 2019.
- BC Children's Hospital Surgical Grand Rounds: Perioperative Management of Renal Transplant in Children. April 2018.

#### **Invited Presentations**

- Department of Pshychiatry BC Children's Hospital Rounds: Neuropsychiatric Disorders and Bladder Dysfunction March 2020.
- Department of Pediatric Surgery Academic Rounds: Bladder Exstrophy May 2019.
- Canadian Urological Association Annual Meeting June 2020, Victoria BC, Invited Speaker

### **Invited Participation**

• Societe Internationale d'Urologie: Development of teaching module for evidence based Urology for SIU School 2020.

## **Conference Participation (Organizer, Keynote Speaker, etc.)**

- Scientific Committee Member Canadian Urological Association 2019-2020 meeting
- Moderator Canadian Urological Association 2019-2020 meeting
- Moderator, American Urological Association (western Section) Annual Meeting, Hawaii 2018

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
CUA Educational Grant	National Implementati on of T-Res for Canadian Urology Residents	С	\$50 000	2018- 2022	A MacNeily K Rourke	J Purtzki
Spina Bifida Association of Canada	Anxiety and Depression in patients attending BCCH Spinal Cord Clinic	С	\$18 000	2019- 2021	A MacNeily K Afshar S Kim	J Purtzki
British Columbia Children's Hospital Research Institute	Impact of surgery in children with congenital anomalies of the kidney and urinary tract	С	\$10 000	2020- 2021	S Kim A MacNeily K Afshar J Masterson	D Matsell J Sutherland
Mohseni Foundation	Teaching Grant	NC	\$25 000	2019- 2024	K Afshar	
Canadian Urological Association	Use of NIRS in diagnosis of Acute Scrotum	С	\$50 000	2017- 2018	K Afhsar	Canadian Urological Association

### **COMMITTEE PARTICIPATION**

Name	Committee
Dr Andrew MacNeily	2000-2020. Member, UBC Dept of Urological Sciences Post- graduate Training Committee.
	2005-2020. Divisional Representative, BCCH Surgical Services Advisory Committee.
	2008-2020. Member, Dept Urological Sciences Promotion and Tenure committee.
	2009-2020. Member, Dept of Urological Sciences Executive Council2011-2020. Vice-Chair, Education and Clinical Affairs Dept of Urologic Sciences.
	2011-2020. Section Editor (Training & Education), Canadian Urol Association Journal.
	2018-19 President elect Canadian Urological Association.
	2019-2020 President Canadian Urological Association.
	Content Provider: Royal College International Urology Examinations 2018-19.
	External Reviewer: Promotion and Tenure Committee McMaster University Dept of Surgery July 2018.
	External Reviewer: Promotion and Tenure Committee Dalhousie University Dept of Urology Aug 2018.
	External Reviewer: 5 yr leadership review Division of Pediatric Urology Hospital for Sick Children Toronto Ontario Nov 27-28 2018.
	Vice Chair Royal College AFC Diploma Committee for Pediatric Urology 2018-2019.
	Chair Royal College AFC Committee for Pediatric Urology 2019-20.
	External Reviewer: Promotion and Tenure committee American University of Beruit Jan 2019.
	External Reviewer: Promotion and Tenure committee University of Wisconsin Dec 2019.

## **COMMITTEE PARTICIPATION**

### 2018-2020

#### Name

Dr. Kourosh Afshar

#### Committee

#### Department

- Member UBC Department of Urologic Sciences Research Council: 2017-present
- Member UBC Department of Urologic Sciences Post-graduate Selection Committee: 2017-18
- Member UBC Department of Urologic Sciences Post-graduate training Committee Jan 2009-Present

### Hospital : British Columbia Children's Hospital

 Director of Research Division of Pediatric Urology, BC Children's Hospital, July 2004-Present

BCCH April 2012-Present

- Associate Chief of Surgery
- Member Surgical Cabinet
- Co-Chair Surgical Suites Safety and Quality Committee
- Member OR data management committee
- Member Child Health Quality of Care Committee
- Member Surgical Advisory Committee
- Member Core Leadership Committee
- Surgeon Champion National Surgical Improvement
   Program

### BCCH BC Children's Hospital Research Institute

- Member Child Health Integrative Partnership Strategy (CHIPS) Committee (2017- present)
- BCCHIR Co lead Clinical Practice, Outcome and Innovation. (2015-Present)

### National

- Member Scientific Committee Canadian Urological Association (2019-2020)
- President Canadian Academy of Urological Surgeons (July 2019-Present)

Chair Resident Competency Committee – Dept of Urological Sciences

Dr. John Masterson

### 2018-2020

N	aı	n	e
	•		-

### Dr Andrew MacNeily

<b>Publication Citation</b>	Pub	lication	Citation
-----------------------------	-----	----------	----------

1.Touma NJ, Beiko DT, <b>MacNeily AE</b> , Leveridge MJ.
Impact of a Training Program on the Performance
of Graduating Canadian Residents on a National
Urology Exam: Results of the Last 20 Years. Can
Urol Assoc J. 2018 Jul 31 .

- 2. MacNeily AE. Reflections on the CUA's many moving parts. Can Urol Assoc J. 2019 Aug; 13(8): 225.
- 3. **MacNeily AE**. Career Mentorship within the CUA. Can Urol Assoc J. 2019 Oct;13(10):296-297.
- 4. MacNeily AE. The CUA: A Microcosm of Canada Can Urol Assoc J. 2019 Dec;13(12):370-371.
- 5. MacNeily AE. Enhancing Diversity or Upping Uncertainty? Can Urol Assoc J. 2019 Dec;13(12):430.
- 6. MacNeily AE: The ABCs of AFCs. Can Urol Assoc J. 2020 Feb;14(2):8-9
- 7. MacNeily AE: What's past is prologue Can Urol Assoc J. 2020 Apr;14(4):81.
- 8. Roshan A, **MacNeily AE**: Dorsal Lumbotomy for Pediatric Upper Pole Heminephrectomy: Back (Door) to the Future? J Pediatr Urol 2020 Aug;16(4):480.e1-480.

### Dr Soojin Kim

 Keefe, D., Rickard, M., Anderson, P., Bagli, D., Blais, A., Bolduc, S., Braga, L., Brownrigg, N., Chua, M., Dave, S., Dos Santos, J., Guerra, L., Hayashi, A., Keays, M., **Kim, S**., Koyle, M., Lee, L., Lorenzo, A., MacLellan, D., MacDonald, L., MacNeily, A., Metcalfe, P., Moore, K., Romao, R., and Wang, P. (2020). Prioritization and management recommendations of pediatric urology conditions during the COVID-19 pandemic. *Can Urol Assoc J*, 14(6):E237-250.

2. **Kim, S.**, Balmert, L., Raval, M., Johnson, E., Abdullah, F., and Chu, D. (2019). Association of number and type of serious complications with failure to rescue in children undergoing surgery: A NSQIP-Pediatric analysis. *J Pediatr Surg*, *S0022-2468(20)30266-9*.

### 2018-2020

Name

### Dr. Kourosh Afshar

### **Publication Citation**

- Afshar K, Dos Santos J, Blais AS, Kiddoo D, Dharamsi N, Wang M, Noparast M: Canadian Urological Association guideline for the management of bladder and bowel dysfunction in children. Canadian Urological Association Journal, 15(2). https://doi.org/10.5489/cuaj.6975. design, data analysis and writing the manuscript
- 2. Robillard JM, Bourne SC, Tam MT, Page PM, Canadian Urological Association Journal, 15(2). https://doi.org/10.5489/cuaj.6975 Lamb EA, Gogal C, Skarsgard E, **Afshar K** Improving the paediatric surgery patient experience: an 8-year analysis of narrative quality data. BMJ Open Qual. 2020 May;9(2):e000924. doi: 10.1136/bmjoq-2020-000924 Co-design, data analysis and co-writing the manuscript
- 3. Fazeli MS, Pourrahmat MM, Collet JP, **Afshar K.**The effects of antimuscarinic agents on the activity of the cardiac autonomic nervous system in children with functional overactive bladder. J Pediatr Urol. 2019 Dec;15(6):642.e1-642.e6. doi: 10.1016/j.jpurol.2019.08.010. Epub 2019 Aug 22.PMID: 31526515 design, data analysis and co-writing the manuscript
- 4. M.Gorges, K.Afshar, N.West, S Pi, J. Bedford, S.Whyte: Integrating intraoperative physiology data into outcome analysis for the ACS Pediatric National Surgical Quality Improvement Program: Paediatr Anaesth. 2018 Oct 22. doi: 10.1111/pan.13531. [Epub ahead of print] PubMed PMID: 30347497. Co-design, data analysis and co-writing the manuscript
- 5. Alshehri A, **Afshar K**, Bedford J, Hintz G, Skarsgard ED. The relationship between preoperative nutritional state and adverse outcome following abdominal and thoracic surgery in children: Results from the NSQIP database. J Pediatr Surg. 2018 May;53(5):1046-105 Co-design, data analysis and co-writing the manuscript
- 6.Haddock C, Al Maawali AG, Ting J, Bedford J, Afshar K, Skarsgard ED. Impact of Multidisciplinary Standardization of Care for Gasteroschisis: Treatment, Outcomes and Cost. J Pediatr Surg. 2018 May;53(5):892-897 Co-design, data analysis and co-writing the manuscript
- 7. Afshar K, Domes T. Varicocele. Can Urol Assoc J. 2018 Apr; 12(4 Suppl1):S34-S36. doi: 10.5489/cuaj.5231. Review. PubMed PMID: 29681272. Literature review, design and writing the manuscript

## **INITIATIVES IN PROGRESS**

S Kim, A MacNeily, K Afshar	Access to surgical care in high income countries – a scoping review
	Association of socioeconomic deprivation with post op complications in a pediatric population: A NSQIP analysis
	Impact of surgery in children with congenital anomalies of the kidney and urinary tract: a pilot study in BC
	Establishing a longitudinal database for BCCH Spinal Cord Clinic encompassing patient reported outcomes
	Quality improvement project: Pediatric Urology Outreach program
	Anxiety and Depression in the Spina Bifida Population
	Incidence of Neuropsychiatric disorders in patients presenting with bowel and bladder dysfunction
	Incidence of bowel and bladder dysfunction in the diabetic population
	Incidence of bowel and bladder dysfunction in the OCD population
	Assessing the gap in global pediatric urological care
	Use of Urodynamics in Prediction of clinical outcomes in children with Lipomenigocele

# DIVISION OF PEDIATRIC NEUROSURGERY



### **FACULTY MEMBERS**

## 2018-2020



Dr. Patrick McDonald, Division Head



Dr. Mandeep Tamber



Dr. Ash Singhal



Dr. Paul Steinbok

### **STAFF MEMBERS**

- Alexander Cheong Research Co-ordinator
- Helen McGregor Administrative Assistant

FELLOWS SUPERVISED	Yahya Khormi Bassel Bali Harrison Westwick
RESIDENTS SUPERVISED	Ronette Goodluck Mostafa Fatehi Charlotte Dandurand Oliver Ayling Michelle Lagace Maxsim Parfyonov Paul Webb
STUDENTS SUPERVISED	Ajmal Zemmer Cristina Schaurich Adrian Byram Khashayar Hanjani Hanna Parmar
	Saman Fouladirad Anahat Sahota Alexander Cheong Kheya McGill
OTHER	Surgical Foundations (2-4hr/year) Neuroethics teaching neurology residents (2-4hr/year) Med 3-outpatient clinics (5 hr/week) UBC MEDD 419 UBC MED 431

Name	Lectures/Presentations
Dr. Patrick McDonald	Parental refusal of life-saving intervention- An alternate framework for management. OPSEI Rounds, March 5, 2019, Vancouver, BC. LOCAL
	Medical Assistance in Dying: Is there a role in Children's Hospitals? Annual Meeting of the American Society of Pediatric Neurosurgeons Kauai, Hawaii, USA- February 1, 2019. INTERNATIONAL
	Invasive neuromodulation in the pediatric population. Ethics of Invasive and Noninvasive Neuromodulation for Psychiatric Illness Symposium. Buenon Aires, Argentina, November 30, 2018. INTERNATIONAL
	Genius or Charlatan? The Ethics of Neurosurgical Innovation and Evaluation Hot Topics in Neurosurgery- CNSF Annual Meeting, Halifax, NS, June 2018. NATIONAL
Dr. Mandeep Tamber	An Overview of Epilepsy Surgery. 6th Annual BC Epilepsy Symposium, Vancouver, BC, October 13, 2018.
	Surgical Decision Making in Pediatric Craniosynostosis. Advanced Practice Provider Seminar. 2018 Annual Meeting of the AANS/CNS Section on Pediatric Neurological Surgery, Nashville, TN, December 6, 2018.
	The Value of Registries in Pediatric Surgical Research. Office of Pediatric Surgical Evaluation and Innovation Rounds, BC Children's Hospital, July 3, 2018.
#### Name

Dr. Mandeep Tamber

#### Lectures/Presentations

Innovation in Surgery. Office of Pediatric Surgical Evaluation and Innovation Summer Student Seminar Series, BC Children's Hospital, July 4, 2018.

Pediatric Epilepsy Surgery. BC Children's Hospital Perioperative Nursing Education Series, BC Children's Hospital, September 19, 2018.

An Overview of Epilepsy Surgery. BC Children's Hospital Fall Surgical Nursing Education Day, Vancouver, BC, November 26, 2018.

Professor's Rounds – Malformations of Cortical Development. UBC Division of Neurosurgery Grand Rounds, Vancouver General Hospital, January 24, 2019.

Building a Career in Academic Pediatric (Neuro)Surgery. BC Children's Hospital Research Institute Summer Student Research Program Seminar Series, BC Children's Hospital, Vancouver, BC, June 6, 2019.

The Treatment of Pediatric Hydrocephalus – Shunts and Endoscopy. BC Children's Hospital Perioperative Nursing Education Series, BC Children's Hospital, June 12, 2019.

Professor's Rounds - An Approach to Pediatric Epilepsy Surgery. UBC Division of Neurosurgery Grand Rounds, Vancouver General Hospital, July 18, 2019.

Name Dr. Ash Singhal	<b>Lectures/Presentations</b> Afifi J, Mitra S, McNeely D, Walling S, Singhal A, Devries, I (2018). Practice Variation in the Diagnosis and Management of Posthemorrhagic Ventricular Dilatation in Very Preterm Infants: A Comparative Study Between Canadian and European Neonatal Centres. Pediatric Academic Societies, Toronto, Canada. Panel presentation – May 2018
Dr. Paul Steinbok	Combined Neurosciences Grand Rounds- VGH - Epilepsy surgery at BCCH (with Dr. Connolly) 21- Mar-2018 Neurosurgery Grand Rounds - Eye Care Centre - Cerebellar mutism 28-Feb-2019 Invited faculty - Annual International Conference of Children's Cancer Hospital - 57357, Cairo : Current advances in Pediatric neurosurgery. 1) Aplasia cutis of scalp 2) Carniosynostosis diagnosis and management. 3) Cerebellar astrocytoma 4) Craniopharyngioma long term outcomes February 21-23, 2018 Invited faculty - Federal Center of Neurosurgery, Tyumen, Siberia, Russia. International Education course: Important issues of pediatric neurosurgery. 1)Indications and techniques of rhizotomy for spastic CP 2)Intrathecal baclofen3) Spectrum of spinal dysraphism April 5-6, 2018 Invited plenary lecturer - Meeting of Eastern Europe and Mediterranean Cerebral Palsy and Developmental Medicine. Tel Aviv, Israel: Patient selection for intrathecal baclofen and selective dorsal rhizotomy May 22-24 2018

#### Name

Dr. Paul Steinbok

#### Lectures/Presentations

Invited faculty – 2018 Annual Postgraduate Course of the European Society for Pediatric Neurosurgery (ESPN),Montegrotto Terme – Italy. 1)VP shunt implantation 2)Long term results of ETV 3)Cysts and surgical techniques 4)Posterior fossa tumors management options 5)Posterior fossa tumor approaches 6)Video session on posterior fossa tumor and head trauma June 11-16, 2018

Invited speaker - Neurosurgical treatment of spasticity: SDR and baclofen pumps ISPN pre congress course - Tel Aviv, Israel. October 7, 2018

Invited faculty - Comprehensive Clinical Neurosurgery Review . Krakow, Poland 1) Brain tumors in children 2) Chiari malformation 3) Spinal dysraphism 4) Craniosynostosis 5)Oral exams -sessions on 4 different topics - posterior fossa tumors, epilepsy surgery, spina cord tumors and skull lesions December 6, 2018

Invited faculty - ISPN course, Bandung, Indonesia, M: 1) Mild Head injury 2) Child abuse 3) Medulloblastoma 4) Limited dorsal myeloschisis 5) Split cord malformation 6) VP shunt insertion 6) Pineal tumours 7) Myelomeningocele closure 8) Chiari I malformation 9) Case presentations – suprasellar tumour, head injury, posterior fossa astrocytoma, ETV January 16-18, 2019

Invited visiting neurosurgeon to National Brain Center or Pusat Otak Nasional (PON), Jakarta, Indonesia. Performed surgeries for pineal tumor and posterior fossa tumor. Talk on Development of Pediatric Neurosurgery at PON. January 19-23,2019

#### Name

Dr. Paul Steinbok

#### Lectures/Presentations

Invited faculty – 2019 Annual Postgraduate Course of the European Society for Pediatric Neurosurgery (ESPN), Harrogate, UK. 1) Neuroblastoma 2) Long term management of MMC 3)Video sessions – midline brain tumors, spine and spinal cord tumors, spinal malformations May 20-24, 2019

Invited guest speaker – The 3rd Arab Pediatric and 8th Magrebian Neurosurgery Joint Conference, Tangier, Morocco . 1) Mild head injury in children 2) Patient selection for SDR and ITB 3)Spectrum of spinal dysraphism June 19-22, 2019

Sadashiva N, Mortenson P, Tamber M, Steinbok P: Upper Extremity Performance Changes in Children with Spastic Cerebral Palsy following Lumbo-sacral Selective Dorsal Rhizotomy. Annual ISPN meeting, Birmingham, UK, Oct 22, 2019

Khormi Y, Chiu M, Goodluck Tyndall R, Mortenson P, Smith D, Steinbok P: Safety and efficacy of independent allied healthcare professionals in the assessment and management of plagiocephaly patients. Annual ISPN meeting, Birmingham, UK, Oct 22, 2019

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
National Institutes of Health (US)	Informing choice for neurotechnolo gical innovation in pediatric epilepsy surgery	С	\$250,000	2018- 2021	Patrick McDonald Judy Illes	Mary Connolly
Sunnybrook Hospital Foundation	Pan-Canadian Neurotechnolo gy Ethics Collaborative	NC	\$75,000	2018- 2020	Patrick McDonald Judy Illes Nir Lipsman	
MASES Engagement Fund (PHSA)	Development of a peer and family support network in pediatric neurosurgery	С	\$5000	2018- 2019	Patrick McDonald Ashutosh Singhal	
Technical Safety BC	Ensuring safety at the cutting edge of neurotechnolo gy	NC	\$42,000	2018- 2020	Patrick McDonald Judy Illes	
National Instututes of Health (US)	Targetting the CSF microbiota to optimize CSF shunt infection treatment	С	\$540,000	2016- 2020	Tamara Simon (University of Washington)	

GRANTING AGENCY	TITLE	СОМР	\$/YEAR	YEAR	PI	CO-PI
Patient-Centered Outcomes Research Institute	A randomized controlled trial of anterior versus posterior entry site for cerebrospinal fluid shunt insertion	С	\$848,000	2015- 2018	William Whitehead (Baylor University)	Patrick McDonald
BC Children's Hospital Research Institute (BCCHRI)	PG#20R02576: Assessing the Quality of Meta-Analyses and Systematic Reviews in the Pediatric Neurosurgical Literature	С	\$5045 CAD	2019- 2020	Mandeep Tamber	
National Institutes of Health (NIH) / National Institute of Neurological Disorders and Stroke (NINDS)	NIH UOINS107486- OIA1: Endoscopic versus Shunt Treatment of Hydrocephalus in Infants (ESTHI)	C	\$1.35M USD	2019- 2026	J Kestle (University of Utah) A Kulkarni (University of Toronto) D Limbrick (Washington University at St, Louis)	Patrick McDonald

## **COMMITTEE PARTICIPATION**

2018-2020

Name	Committee
Dr. Patrick McDonald	Board of Examiners for Neurosurgery- Kuwaiti Institute of Medical Specialties- 2017-present
	Ethics Committee- Royal College of Physicians and Surgeons of Canada
	Neurosurgery Written Examination Committee- Royal College of Physicians and Surgeons of Canada- 2015- present
	Neurosurgery Specialty Committee- Royal College of Physicians and Surgeons of Canada- 2005- present
	Surgical Services Advisory Committee- BC Children's Hospital- 2016- present
	Surgical Cabinet- BC Children's Hospital- 2016- present
Dr. Ash Singhal	Chief Examiner- Surgical Foundations Exam, Royal College of Physicians and Surgeons of Canada Communications Co-Chair- International Society for Pediatric Neurosurgery
Dr. Mandeep	Mortality Review Committee, BC Children's Hospital, 2018- 2019.
Tamber	Pediatric Spina Bifida Evidence Review Taskforce of the AANS/CNS Joint Guidelines Committee (JGC) 2015-2018

## 2018-2020

Name

#### Dr. Patrick McDonald

- **Publication Citation**
- Mutch WA, Ellis MJ, Ryner LN, McDonald PJ, Morissette MP, Pries P, Essig M, Mikulis DJ, Duffin J, Arnold Fisher J: Patient-specific alterations in CO2 cerebrovascular responsiveness in sub-acute sports-related concussion. Front Neurol 9:23, Jan 24, 2018 doi: 10.3389/fneur.2018.00023
- Makarenko S, Singh N, McDonald PJ: Nonsurgical transient cerebellar mutism- Case report and systematic review. Childs Nerv Syst 34(3):535-540, 2018.
- Ellis MJ, Barnes J, Cordingly DM, Bunge M, McDonald PJ, Ritchie L: Management of an athlete with sports-related concussion and intraparenchymal hemorrhage. Curr Sports Med Rep 17(1):7-9, 2018.
- Singh N, McDonald PJ: Transitioning in hydrocephalus: Current practices in Canadian Pediatric Neurosurgery centres.Paediatr Child Health 23(7):e150-e155, 2018.
- de Lotbinieree-Basset M, McDonald PJ: Industry Financial Relationships in Neurosurgery in 2015: Analysis of the Sunshine Act Open Payments Database World Neurosurgery 114:e920-e925, 2018
- de Lotbinierre-Basset M, Riva-Cambrin J, McDonald PJ: Conflict of Interest Policies and disclosure requirements in Neurosurgical Journals J Neurosurg 2018 Aug 17:1-7 (epub ahead of print)
- Ellis MJ, McDonald PJ, Olsen A, Koenig J, Russell K: Cervical spine dysfunction following pediatric sportsrelated head trauma. J Head Trauma Rehabil 34(2):103-110, 2019.
- Illes JA, Antle A, Lou H, Longstaff H, Rahimzadeh V, McDonald PJ, Van der Loos HFM: Involving children with neurodevelopmental disorders in biomedical research. Lancet Child Adolesc Health 3(3):143-144, 2019.
- Radic JA, Illes J, McDonald PJ: Fetal repair of open neural tube defects: Ethical, legal and social issues. Camb Q Healthc Ethics 28(3):476-487, 2019.
- Phillips D, Stevens D, Kulkarni AV, McDonald PJ, Riva-Cambrin J, Mehta V: Interhypothalamic adhesions in endoscopic third ventriculostomy. Childs Nerv Syst 35(9):1565-1570, 2019.

## 2018-2020

#### Name

Dr. Patrick McDonald and Dr. Mandeep Tamber

#### **Publication Citation**

•	Greenberg JK, Jeffe D, Carpenter CR, Yan Y, Paneda JA,
	Lumba-Brown A, Keller MS, Berger D, Bollo RJ, Ravindra
	V, Naftel RP, Dewan M, Shah MN, Burns EC, O'Neill BR,
	Hankinson TC, Whitehead WE, Adelson PD, Tamber MS,
	McDonald PJ, Ahn ES, Titsworth W, West AN, Brownson
	RC, Limbrick DD: North American survey on the post-
	neuroimaging management of children with mild head
	injuries. J Neurosurg Pediatr 23(2):227-235, 2018.
٠	Pindrik J, Riva-Cambrin J, Kulkarni AV, Alvey J, Reeder R,
	Pollack IF, Jackson E, Rozzelle C, Whitehead W, Limbrick

Pollack IF, Jackson E, Rozzelle C, Whitehead W, Limbrick
D, Wellons III J, Naftel R, Shannon C, McDonald P,
Tamber MS, Hankinson TC, Hauptman J, Simon T,
Krieger M, Holubkov R, Kestle J for the Hydrocephalus
Clinical Research Network. Surgical Resource Utilization
after Initial Treatment of Infant Hydrocephalus:
Comparing Endoscopic Third Ventriculostomy (ETV),
Early Experience of ETV with Choroid Plexus
Cauterization, and Shunt Insertion in the Hydrocephalus
Clinical Research Network. Journal of Neurosurgery:
Pediatrics, 2019

 Hauptman JS, Kestle J, Riva-Cambrin J, Kulkarni A, Browd S, Rozzelle C, Whitehead W, Naftel R, Pindrik J, Limbrick D, Drake J, Wellons J, Tamber MS, Shannon C, Simon T, Pollack I, McDonald P, Krieger M, Hankinson TC, Jackson E, Alvey J, Reeder R, Holubkov R, Langley M for the Hydrocephalus Clinical Research Network. Predictors of Fast and Ultrafast Shunt Failure in Pediatric Hydrocephalus: A Hydrocephalus Clinical Research Network (HCRN) study. Journal of Neurosurgery: Pediatrics, 2019

#### Dr. Mandeep Tamber

• Utz M, Tamber MS, Mason GE, Pollack IF, Panigrahy A, Zuccoli G. Contrast-Enhanced 3-Dimensional Fluid Attenuated Inversion Recovery Sequences Have Greater Sensitivity for Detection of Leptomeningeal Metastases in Pediatric Brain Tumors Compared to Conventional Spoiled Gradient Echo Sequences. J. Pediatr. Hematol. Oncol., 40:316-319, 2018.

#### 2018-2020

Name

- **Publication Citation**
- Kulkarni AV, Riva-Cambrin J, Rozzelle CJ, Naftel RP, Alvey JS, Reeder RW, Holubkov R, Browd SR, Cochrane DD, Limbrick DD Jr, Simon TD, Tamber MS, Wellons JC 3rd, Whitehead WE, Kestle JRW. Endoscopic Third Ventriculostomy and Choroid Plexus Cauterization in Infant Hydrocephalus: A Prospective Study by the Hydrocephalus Clinical Research Network. Journal of Neurosurgery: Pediatrics, 21:214-223, 2018.
- Haredy M, Zuccoli G, Tamber MS, Davis A, Nischal K, Goldstein JA. Use of Neuroimaging Measurements of Optic Nerve Sheath Diameter to Assess Intracranial Pressure in Craniosynostosis. Childs Nerv. Syst., 34:939-946, 2018.
- Simon T, Kronman M, Whitlock K, Gove N, Hamblett N, Browd S, Cochrane D, Holubkov R, Kulkarni A, Langley M, Limbrick D, Luerrsen T, Oakes J, Riva-Cambrin J, Rozzelle C, Shannon C, Tamber MS, Wellons J, Whitehead W, Kestle J. Reinfection after treatment of first cerebrospinal fluid (CSF) shunt infection: a prospective observational cohort study. Journal of Neurosurgery: Pediatrics, 21:346-358, 2018.
- Simon TD, Kronman MP, Whitlock KB, Browd SR, Holubkov R, Kestle JRW, Kulkarni AV, Langley M, Limbrick DD, Luerssen TG, Oakes J, Riva-Cambrin J, Rozzelle C, Shannon CN, Tamber MS, Wellons JC, Whitehead WE, Mayer-Hamblett N. Patient and Treatment Characteristics by Infecting Organism in Cerebrospinal Fluid (CSF) Shunt Infection. J. Pediatric Infect. Dis. Soc., 2018.
- Kestle JRW, Lee A, Anderson RCE, Gociman B, Patel KB, Smyth MD, Birgfield C, Pollack IF, Goldstein J, Tamber MS, Imahiyerobo T, Siddiqi F for the Synostosis Research Group. Variation n the Management of Isolated Craniosynostosis: A survey of the Synostosis Research Group (SynRG). Journal of Neurosurgery: Pediatrics, 22:627-631, 2018.
- Honey CM, Malhotra AK, Tamber MS, Prud'homme M, Mendez I, Honey CR. Canadian Assessment of Deep Brain Stimulation Access: the CANADA Study. Can J Neurol Sci, 45:553-558, 2018.

## 2018-2020

Name

- **Publication Citation**
- Mazzola CA, Tyagi R, Assassi N, Baird LC, Bauer DF, Beier AD, Blount J, Bodach M, Durham SR, Flannery AM, Klimo Jr P, McClung-Smith C, Nikas DC, Rehring P, Tamber MS. Congress of Neurological Surgeons Systematic Review and Evidence Based Guideline on the Incidence of Tethered Cord Syndrome in Infants with Myelomeningocele with Prenatal Versus Postnatal Repair. Neurosurgery, 85(3):E417-E419, 2019.
- Blount J, Durham SR, Klimo Jr P, Assassi N, Baird LC, Bauer DF, Beier AD, Bodach M, Flannery AM, McClung-Smith C, Nikas DC, Rehring P, Tamber MS, Tyagi R, Mazzola CA. Congress of Neurological Surgeons Systematic Review and Evidence Based Guideline on the Management of Patients With Myelomeningocele: Whether Persistent Ventriculomegaly Adversely Impacts Neurocognitive Development. Neurosurgery, 85(3):E414-E416, 2019
- Beier AD, Nikas DC, Assassi N, Baird LC, Bauer DF, Blount J, Bodach M, Durham SR, Flannery AM, Klimo Jr P, McClung-Smith C, Rehring P, Tamber MS, Tyagi R, Mazzola CA. Congress of Neurological Surgeons Systematic Review and Evidence Based Guideline on Closure of Myelomeningocele within 48 Hours to Decrease Infection Risk. Neurosurgery, 85(3):E412-E413, 2019
- Bauer DF, Baird LC, Assassi N, Beier AS, Blount J, Bodach M, Durham SR, Flannery AM, Klimo Jr P, McClung-Smith, C, Nikas DC, Rehring P, Tamber MS, Tyagi R, Mazzola CA. Congress of Neurological Surgeons Systematic Review and Evidence Based Guideline on the Management of Patients with Myelomeningocele: Whether Prenatal or Postnatal Closure Affects Future Ambulatory Status. Neurosurgery, 85(3):E409-E411, 2019
- Tamber MS, Flannery AM, McClung-Smith C, Assassi N, Baird LC, Bauer DF, Beier AD, Blount J, Bodach M, Durham SR, Klimo Jr P, Nikas DC, Rehring P, Tyagi R, Mazzola CA. Congress of Neurological Surgeons Systematic Review and Evidence Based Guideline on the Incidence of Shunt-Dependent Hydrocephalus in Infants with Myelomeningocele After Prenatal Versus Postnatal Repair. Neurosurgery, 85(3):E405-E408, 2019.

## 2018-2020

Name

- **Publication Citation**
- Mazzola CA, Assassi N, Baird LC, Bauer DF, Beier AD, Blount JP, Durham SR, Flannery AM, Klimo P, McClung-Smith C, Nikas DC, Rehring P, Tamber MS, Tyagi R. Congress of Neurological Surgeons Systematic Review and Evidence-Based Guidelines for Pediatric Myelomeningocele: Executive Summary. Neurosurgery, 85(3):299-301, 2019
- Davis AA, Zuccoli G, Haredy M, Runkel L, Losee J, Tamber MS, Pollack IF, Tyler-Kabara E, Goldstein J, Nischal KK. The Incidence of Chiari Malformations in Patients with Isolated Sagittal Synostosis. Plastic and Reconstructive Surgery Global Open, 2019.
- Davis AA, Zuccoli G, Losee J, Haredy M, Tamber MS, Pollack IF, Goldstein J, Nischal KK. Syndromic and Systemic Diagnoses Associated with Isolated Sagittal Synostosis: A Retrospective Analysis. Plastic and Reconstructive Surgery Global Open, 2019
- Riva-Cambrin J, Kestle JRW, Rozzelle CJ, Naftel RP, Alvey J, Reeder RW, Holubkov R, Browd SR, Cochrane DD, Limbrick DD, Shannon CS, Simon TD, Tamber MS, Wellons J, Whitehead WE, Kulkarni AV for the Hydrocephalus Clinical Research Network. Predictors of Endoscopic Third Ventriculostomy + Choroid Plexus Coagulation Success in a North American Setting: A Hydrocephalus Clinical Research Network (HCRN) Study. Journal of Neurosurgery: Pediatrics, 2018
- Strahle JM, Taiwo R, Averill C, Torner J, Shannon CS, Bonfield CM, Tuite GF, Brockmeyer DL, Wellons J, Leonard JR, Mangano F, Johnston JM, Shah MN, Iskandar BJ, Tyler-Kabara EC, Daniels DJ, Jackson EM, Grant GA, Couture DE, Adelson PD, Alden T, Aldana PR, Anderson RCE, Selden NR, Baird LC, Bierbrauer K, Chern JJ, Whitehead WE. Dauser RC. Ellenbogen RG. Fuchs HE. Guillaume DJ, Hankinson TC, Iantosca M, Oakes J, Keating RF, Khan NR, Muhlbauer MS, McComb JG, Menezes AH, Ragheb J, Smith JL, Maher CO, Greene S, Narayan P, Kelly M, O'Neill BR, Krieger M, Tamber MS, Durham SR, Olavarria G, Stone S, Kaufman BA, Heuer G, Bauer DF, Albert G, Greenfield JP, Wait SD, van Poppel M, Eskandari R, Mapstone T, Shimony JS, Smyth MD, Dacey Jr RG, Park TS, Limbrick DD. Radiological and Clinical Predictors of Scoliosis in Patients with Chiari Malformation Type I and Spinal Cord Syrinx from the Park Reeves Syringomyelia Research Consortium. Journal of Neurosurgery: Pediatrics, 2019

## 2018-2020

Name

- Publication Citation
  Madsen JR, Hameed MQ, Boyle TP, Neuman MI, Park E-H, Tamber MS, Hickey RW, Heuer GG, Zorc J, Leonard JR, Leonard JC, Keeting D, Chemberlein J, Frim DM
- Leonard JC, Keating R, Chamberlain J, Frim DM, Zakrzewshi P, Klinge P, Merck LH, Piatt JH, Bennett JE, Sandberg DI, Boop FA. Non-invasive Thermal Flow Evaluation of Ventriculoperitoneal Shunt Flow Improves Diagnostic Accuracy of Shunt Malfunction: A Prospective, Multi-Site Operator-Blinded Study. Neurosurgery 2018
- Simon TD, Kronman M, Whitlock K, Browd S, Holubkov R, Kestle J, Kulkarni A, Langley M, Limbrick D, Luerrson T, Oakes J, Riva-Cambrin J, Rozzelle C, Tamber MS, Shannon C, Wellons J, Whitehead W, Hamblett N. Reinfection Rates Following Adherence to Infectious Diseases Society of America (IDSA) Guideline Recommendations in First Cerebrospinal Fluid (CSF) Shunt Infection Treatment. Journal of Neurosurgery: Pediatrics, 2018
- Strahle JM, Taiwo R, Averill C, Torner J, Shannon CN, Wellons JC. Bonfield C. Tuite GF. Bether-Anderson T. Rutlin J, Brockmeyer DL, Leonard JR, Mangano FT, Bierbrauer K, Johnston JM, Oakes J, Shah MN, Iskandar BJ. Ahmed R. Greene S. Daniels DJ. Jackson EM. Grant GA. Couture DE. Adelson PD. Alden TD. Aldana PR. Anderson RCE, Selden NR, Baird LC, Chern JJ, Whitehead WE, Dauser RC, Ellenbogen RC, Fuchs HE, Guillaume DJ, O'Neill B, Hankinson TC, lantosca MR, Keating RF, Khan NR, Muhlbauer M, McComb JG, Krieger M, Menezes AH, Durham JR, Olavarria G, Stone S, Heuer G, Bauer DF, Albert G, Greenfield JP, Wait SD, van Poppel M, Eskandari R, Mapstone T, George TM, Tamber MS, McKinstry RC, Shimony JS, Dacey Jr RC, Smyth MD, Park TS. Limbrick DD. Radiologic and Clinical Associations with Scoliosis Outcomes After Posterior Fossa Decompression in Patients With Chiari and Syrinx from the Park-Reeves Syringomyelia Research Consortium. Journal of Neurosurgery: Pediatrics, 2018
- Pfeifauf KD, Naidoo SD, Skolnick GB, Kestle JRW, Lee A, Birgfeld G, Anderson RCE, Gociman B, Siddiqi FA, Pollack IF, Goldstein JA, Tamber MS, Imahiyerobo T, Smyth MD, Patel KB for the Synostosis Research Group. Evaluation of the Patient-Practitioner Consultation on Surgical Treatment Options for Patients with Craniosynostosis. Journal of Craniofacial Surgery, 2019

## 2018-2020

Name

- Publication Citation
  Madsen JR, Hameed MQ, Boyle TP, Neuman MI, Park E-H, Tamber MS, Hickey RW, Heuer GG, Zorc J, Leonard JR, Leonard JC, Keating R, Chamberlain J, Frim DM, Zakrzawski D, Klinge D, Marak LH, Diatt JH, Bannatt JE
  - Zakrzewshi P, Klinge P, Merck LH, Piatt JH, Bennett JE, Sandberg DI, Boop FA. Non-invasive Thermal Flow Evaluation of Ventriculoperitoneal Shunt Flow Improves Diagnostic Accuracy of Shunt Malfunction: A Prospective, Multi-Site Operator-Blinded Study. Neurosurgery 2018
- Simon TD, Kronman M, Whitlock K, Browd S, Holubkov R, Kestle J, Kulkarni A, Langley M, Limbrick D, Luerrson T, Oakes J, Riva-Cambrin J, Rozzelle C, Tamber MS, Shannon C, Wellons J, Whitehead W, Hamblett N. Reinfection Rates Following Adherence to Infectious Diseases Society of America (IDSA) Guideline Recommendations in First Cerebrospinal Fluid (CSF) Shunt Infection Treatment. Journal of Neurosurgery: Pediatrics, 2018
- Strahle JM, Taiwo R, Averill C, Torner J, Shannon CN, Wellons JC. Bonfield C. Tuite GF. Bether-Anderson T. Rutlin J, Brockmeyer DL, Leonard JR, Mangano FT, Bierbrauer K, Johnston JM, Oakes J, Shah MN, Iskandar BJ. Ahmed R. Greene S. Daniels DJ. Jackson EM. Grant GA. Couture DE. Adelson PD. Alden TD. Aldana PR. Anderson RCE, Selden NR, Baird LC, Chern JJ, Whitehead WE, Dauser RC, Ellenbogen RC, Fuchs HE, Guillaume DJ, O'Neill B, Hankinson TC, lantosca MR, Keating RF, Khan NR, Muhlbauer M, McComb JG, Krieger M, Menezes AH, Durham JR, Olavarria G, Stone S, Heuer G, Bauer DF, Albert G, Greenfield JP, Wait SD, van Poppel M, Eskandari R, Mapstone T, George TM, Tamber MS, McKinstry RC, Shimony JS, Dacey Jr RC, Smyth MD, Park TS. Limbrick DD. Radiologic and Clinical Associations with Scoliosis Outcomes After Posterior Fossa Decompression in Patients With Chiari and Syrinx from the Park-Reeves Syringomyelia Research Consortium. Journal of Neurosurgery: Pediatrics, 2018
- Pfeifauf KD, Naidoo SD, Skolnick GB, Kestle JRW, Lee A, Birgfeld G, Anderson RCE, Gociman B, Siddiqi FA, Pollack IF, Goldstein JA, Tamber MS, Imahiyerobo T, Smyth MD, Patel KB for the Synostosis Research Group. Evaluation of the Patient-Practitioner Consultation on Surgical Treatment Options for Patients with Craniosynostosis. Journal of Craniofacial Surgery, 2019

## 2018-2020

#### Name

#### **Publication Citation**

Dr. Mandeep Tamber and Dr. Patrick McDonald	<ul> <li>Pindrik J, Riva-Cambrin J, Kulkarni AV, Alvey J, Reeder R, Pollack IF, Jackson E, Rozzelle C, Whitehead W, Limbrick D, Wellons III J, Naftel R, Shannon C, McDonald P, Tamber MS, Hankinson TC, Hauptman J, Simon T, Krieger M, Holubkov R, Kestle J for the Hydrocephalus Clinical Research Network. Surgical Resource Utilization after Initial Treatment of Infant Hydrocephalus: Comparing Endoscopic Third Ventriculostomy (ETV), Early Experience of ETV with Choroid Plexus Cauterization, and Shunt Insertion in the Hydrocephalus Clinical Research Network. Journal of Neurosurgery: Pediatrics, 2019</li> <li>Hauptman JS, Kestle J, Riva-Cambrin J, Kulkarni A, Browd S, Rozzelle C, Whitehead W, Naftel R, Pindrik J, Limbrick D, Drake J, Wellons J, Tamber MS, Shannon C, Simon T, Pollack I, McDonald P, Krieger M, Hankinson TC, Jackson E, Alvey J, Reeder R, Holubkov R, Langley M for the Hydrocephalus Clinical Research Network. Predictors of Fast and Ultrafast Shunt Failure in Pediatric Hydrocephalus: A Hydrocephalus Clinical Research Network (HCRN) study. Journal of Neurosurgery: Pediatrics, 2019</li> </ul>
Dr. Paul Steinbok and Dr. Ash Singhal	<ul> <li>Renne B, Rueckriegel S, Ramachandran S, Radic J, Steinbok P, Singhal A. Bobble-head doll syndrome: report of 2 cases and a review of the literature, with video documentation of the clinical phenomenon. Journal of Neurosurgery: Pediatrics. 2018 Jan 5:1-1.</li> <li>Bonfield CM, Basem J, Cochrane DD, Singhal A, Steinbok P. Examining the need for routine intensive care admission after surgical repair of nonsyndromic craniosynostosis: a preliminary analysis. Journal of Neurosurg Pediatr. 2018 Sep; 21:1-4. doi: 10.3171/2018.6.PEDS18136.</li> <li>Renne B, Radic J, Agrawal D, Albrecht B, Bonfield CM, Cohrs G, Davis T, Gupta A, Hebb ALO, Lamberti-Pasculli M, Knerlich-Lukoschus F, Lindsay S, McNeely PD, Pillai S, Rai HIS, Sborov KD, Vitali A, Walling S, Woerdeman P, Suryaningtyas W, Cochrane D, Singhal A, Steinbok P. Cerebellar mutism after posterior fossa tumor resection in children: a multicenter international retrospective study to determine possible modifiable factors. Child's Nervous System. Childs Nerv Syst. 2019 Jan 18. doi: 10.1007/s00381-019-04058-7. [Epub ahead of print</li> </ul>

#### 2018-2020

Name	Publication Citation
Dr. Paul Steinbok and Dr. Ash Singhal	<ul> <li>Walker-Palmer TK, Cochrane DD, Singhal A, Steinbok P. Outcomes and complications for individual neurosurgeons for the treatment of Chiari I malformation at a children's hospital. Childs Nerv Syst. 2019 Oct;35(10):1895-1904. doi: 10.1007/s00381-019-04201- 4. Epub 2019 May 24.</li> </ul>
Dr. Paul Steinbok, Dr. Ash Singhal and Alexander Cheong	<ul> <li>Singhal A, Cheong A, Steinbok P. International survey on the management of Chiari 1 malformation and syringomyelia: evolving worldwide opinions. Child's Nervous System. doi: 10.1007/s00381-018-3741-x Epub 2018 Mar 12.</li> </ul>
Dr. Ash Singhal	<ul> <li>Cohrs G, Huhndorf M, Niemczyk N, Volz LJ, Bernsmeier A, Singhal A, Larsen N, Synowitz M, Knerlich-Lukoschus F. MRI in mild pediatric traumatic brain injury: diagnostic overkill or useful tool? Childs Nerv Syst. 2018 Jul;34(7):1345-1352. doi: 10.1007/s00381-018-3771-4. Epub 2018 Mar 19.</li> <li>Yang MMH, Singhal A, Hengel AR, Kerr JM, St-Pierre GH, George S, Muir K, Thiessen P, Enarson P. Video Diversion Improves Success Rate of Fundoscopic Examination in Children: A Prospective Randomized Controlled Trial. Pediatr Neurol. 2018 Jun;83:32-37</li> <li>Barr RG, Barr M, Rajabali F, Humphreys C, Pike I, Brant R, Hlady J, Colbourne M, Fujiwara T, Singhal A. Eight-year outcome of implementation of abusive head trauma prevention. Child Abuse Negl. 2018 Oct;84:106-114. doi: 10.1016/j.chiabu.2018.07.004. Epub 2018 Aug 1.</li> <li>Klieverik VM, Miller KJ, Han KS, Singhal A, Vassilyadi M, Touchette CJ, Weil AG, Woerdeman PA. Cranioplasties following craniectomies in children-a multicenter, retrospective cohort study. Childs Nerv Syst. 2018 Dec 15. doi: 10.1007/s00381-018-4024-2.</li> <li>Klieverik VM, Miller KJ, Singhal A, Han KS, Woerdeman PA. Cranioplasty after craniectomy in pediatric patients- a systematic review. Childs Nerv Syst. 2019 Jan 4. doi: 10.1007/s00381-018-4025-1. [Epub ahead of print]</li> </ul>

#### 2018-2020

Name	Publication Citation
Dr. Ash Singhal and Alexander Cheong	<ul> <li>Mo D, O'Hara NN, Hengel R, Cheong AR, Singhal A. The Preferred Attributes of a Trauma Team Leader: Evidence From a Discrete Choice Experiment. Journal of Surgical Education.doi: 10.1016/j.jsurg.2018.06.021. Epub 2018 Sep 18</li> <li>Kassam F, Cheong AR, Evans D, Singhal A. What attributes define excellence in a trauma team? A qualitative study. Can J Surg. 2019;62(6):450-453. doi:10.1503/cjs.013418</li> </ul>
Dr. Paul Steinbok	<ul> <li>Khormi Y, Chiu M. Goodluck Tyndall R, Mortenson P, Smith D, Steinbok P. Safety and efficacy of independent allied healthcare professionals in the assessment and management of plagiocephaly patients. Childs Nerv Syst. 2020 Feb;36(2):373-377. doi: 10.1007/s00381-019- 04400-z. Epub 2019 Nov 14.</li> </ul>

## **INITIATIVES IN PROGRESS**

## 2018-2020

#### Dr. Mandeep Tamber and Dr. Patrick McDonald

Tamber MS, Kestle JRW, Miller B, Reeder RW, Holubkov R, Browd S, Kulkarni A, Limbrick DD, McDonald P, Rozzelle CJ, Wellons III JC, Whitehead WE, Riva-Cambrin J for the Hydrocephalus Clinical Research Network. Temporal Trends in Surgical Procedures for Pediatric Hydrocephalus - An Analysis of the Hydrocephalus Clinical Research Network (HCRN) Core Data Project. For submission to the New England Journal of Medicine, 2019 [awaiting final review of manuscript by co-authors]