

## Department of Pediatrics Research Report



## Summer 2019

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## Featured Child Health Researcher Dr. Sarah Donkers

Sarah Donkers is a faculty member for the School of Rehabilitation Science and whether she is teaching in the classroom, helping patients in the clinic, or working on research, her curiosity for movement is evident in all corners of her life. Sarah's current research looks at optimizing function (walking with balance) in pediatric and neurological conditions. This project is about advancing clinical gait analysis in children with arthritis to enhance care and disease outcomes. More specifically, this project is about optimizing gait for children with Juvenile Idiopathic Arthritis (JIA) to ensure function, normal growth and development, and favorable quality of life. This research is timely as there is presently a lack



of information about gait in JIA. Current approaches for gait assessment in children with JIA within the clinical setting remain rudimentary and largely subjective. Therefore, the purpose of this interdisciplinary research study is to investigate the value-added feasibility and sensitivity of quantitative, objective clinical gait measures in children with JIA. Sarah's study involves state-of-theart technologies that initially were

developed to design video games. In a lighthearted turn, this tidbit of information certainly brightened the mood of one participant when setting up for the various tests. Smiles all around make this unique project a fun opportunity for learning.





Promotional videos of motion capture system

#### **Department of Pediatrics Research Report**

Sarah is comparing three different portable (for use in clinic) gait technologies with observational gait analysis and timed walking tests to see which measures are most sensitive and appropriate for picking up gait deviations. She is also comparing a child's walking and balance to measures of quality of life and disease severity.

This research could help children with arthritis optimize their walking and minimize long-term musculoskeletal injuries. New innovative diagnostic tools for health professionals could also be developed in the future to best detect and monitor changes in gait. This project will definitely make you think twice the next time you consider the value of videogames.

List of collaborators:

Pediatric Rheumatology - Dr. Mehul Jariwala, Dr. Alan Rosenberg School of Rehabilitation Science – Dr. Liz Harrison and Dr. Audrey Zucker-Levin

School of Kinesiology – Dr. Alison Oates

(With special thanks to Joan Dietz and Kyra Ives for helping with recruitment and data collection)

This project is funded through College of Medicine - CoMRaD

## Summer Highlights of Notable Trainees and Students

Congratulations to Pediatric Resident, **Kayla Parker**:

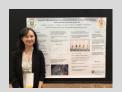
For being awarded one of the Top Clinical Poster Awards at the 2019 Interdisciplinary Resident Research Day (REACH)

And her co-authorship on the abstract, 'A simulation Study to Assess the Effect of Analytic Error on Neonatal Glucose Measurements Using CPS Position Statement Action Thresholds' that won 2019 AACC Best Abstract Award, Informatics Division in collaboration with Dr. Martha Lyons, Dr. Mark Inman, and Dr. Lannae Strueby.

96th Annual Canadian Pediatric Society Conference



Congratulations to Medical Student, **Madeline Parker** for her co-authorship with Dr. Krista Baerg and Casey McMahon on the abstract, 'Assessment of a Job Aid for Pain Management at Pediatric Blood Collections'



Congratulations to Pediatric Resident, **Mehrieh Rahimi** for her poster titled, 'Inspissated Bile Syndrome secondary to Hemolytic Disease of Newborn and Concomitant Serum Dynamics' in collaboration with Drs. Samedi, Kalaniti, Musharaf, Lyon, Sinha, and Bingham







#### **Invitation to Youth/Patient**

Do you know a youth between 13-19 y.o. who would be interested in participating on the KidsCan Young Persons Advisory Group?

Youth will participate in design of research documents, raise awareness of the importance of youth in research

#### **Invitation to Researcher**

Are you interested in seeking consultations from youth on current or upcoming studies?

KidsCan can help in designing research documents, providing input on the format of research ethics consent and assent forms, and establishing patient-centered research protocols and methodology.

For more information https://www.micyrn.ca/ypag

## **Coming Events**

Sept 16 Endocannabinoids: Multi-modal Regulators of the Stress Response-Dr. Matthew Hill from the Hotchkiss Brain Institute, University of Calgary – 10:30am E1130 HSB

Sept 16

<u>Using Patient Perspectives to</u>

<u>Improve Amputee Care in</u>

Saskatchewan

Sept 19 Mingling Minds

Sept 23-24 QI: Exploring Artificial Intelligence for Quality Health Outcomes

Sept 26 Stop Pain Think Tank – Interdisciplinary Research
Network meeting

Sept 26 SK Indigenous Mentorship
Network – 2nd Annual Gathering

Sept 28 Global Health Conference

Oct 3 This year's Prevention Matters
conference is including a one-day
medical stream that aims to address
the needs of healthcare
professionals, with applicable
information, training, and tools to
use in their practice.

Oct 5 Pain and Therapeutics Conference

Oct 18-19 The Animal-Human Relationship

## **Stop Pain Think Tank**

Are you interested in child and youth pain research? Stop Pain Think Tank was created to percolate interdisciplinary research collaborations in Saskatchewan.

Agenda
Opening remarks
Introduction to Complex Pain - Dr. Krista Baerg
Mobilizing expertise: research strengths and possibilities
Catalyzing action: subsequent Think Tank opportunities
Projects/ funding
Future networking

Join the conversation on Thursday, September 26, 3:00pm - 5:00pm 1B21 Lounge, Health Science Building, University of Saskatchewan

Pain Week

Snacks and refreshments included provided by Department of Pediatrics – Research Division

## **RSVP** Today!

For more information please contact stoppain@usask.ca



# Department of Pediatric Grand Rounds September 2019

Sept 12	Dr. Nita Chauhan	A breath of fresh air: Environmental impacts on pediatric lung health
Sept 19	Dr. Leslie Jocelyn	"Untangling ADHD Treatment" – Essentials for the Pediatrician
Sept 26	Dr. Aiden Hollis	"Why Canada needs to invest in children [even if we don't care about them]"
Oct 3	Dr. Noni MacDonald	Addressing Vaccine Hesitancy

## In the news!

Congratulations to **Dr. Richard Huntsman** on his recent publication, '<u>Dosage</u> Related Efficacy and Tolerability of Cannabidiol in Children With Treatment-Resistant Epileptic Encephalopathy: Preliminary Results of the CARE-E Study'. Richard J. Huntsman, Richard Tang-Wai, Jane Alcorn, Stephanie Vuong, Bryan Acton, Scott Corley, Robert Laprairie, Andrew W. Lyon, Simona Meier, Darrell D. Mousseau, Doris Newmeyer, Erin Prosser-Loose, Blair Seifert, Jose Tellez-Zenteno, Linda Huh, Edward Leung and Philippe Major

Dr. Huntsman, pediatric neurologist at the University of Saskatchewan and fellow collaborators recently published an article in Frontiers in Neurology. The publication presents preliminary data of seven participants from the Cannabidiol in Children with Refractory Epileptic Encephalopathy (CARE-E) study. The study is an open-labeled, prospective, dose-escalation trial that is designed to assess the safety and efficacy of a Cannabidiol (CBD) - Enriched Cannabis Herbal Extract (CHE) in children with severe pediatric epilepsy. The overall reduction in seizures was close to 75% on average.



Photo and Funding by <u>Jim</u>
Pattison Children's Hospital
Foundation

To see recent news about this study and learn more check out the following links!

Cannabidiol Oil Safely Lessens Seizures in Treatment-resistant Children,

Early Trial Data Show Further research supports the use of cannabis oil in reducing seizures in kids Cannabis oil can reduce seizures in kids, University of Sask. study suggests Cannabis dosage studied at USask to reduce seizures in children with severe epilepsy Dosage Related Efficacy and Tolerability of Cannabidiol in Children With Treatment-Resistant Epileptic Encephalopathy:

Preliminary Results of the CARE-E Study

USask Research Shows Cannabis Treats Children with Epilepsy

The Children's Health Research Trust Fund (CHRTF) was established in 1983 to help raise funds to support child health research at the University of Saskatchewan. As all donated funds are endowed, the CHRTF has continued to grow to become an important part in helping advance research in the Department of Pediatrics. For further information about the CHRTF and to donate: <a href="https://donate.usask.ca/online/chrtf.php">https://donate.usask.ca/online/chrtf.php</a>



#### Our Partners:

The Jim Pattison Children's Hospital has historically provided strong support for child health research in Saskatchewan. The recent \$50 million donation from Jim Pattison allows for a steady stream of revenue to help meet research and programming needs for generations to come. Groundbreaking opportunities for pediatric researchers in Saskatchewan are on the horizon



#### Contact us

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