



18th Annual Bloorview Research Institute Symposium

# Advancing Horizons:

Personalized, equitable care and  
global partnerships through the  
power of childhood disability research

Thursday, November 16, 2023

Sponsored by





**Premier of Ontario - Premier ministre de l'Ontario**

November 16, 2023

## **A MESSAGE FROM PREMIER DOUG FORD**

Warm greetings to everyone taking part in the 18<sup>th</sup> Annual Bloorview Research Institute Symposium.

In the spirit of this year's theme, Advancing Horizons, this event showcases the many advances made by the Bloorview Research Institute in the field of childhood disability.

Over the past few decades, we've come a long way in understanding the challenges individuals with physical and developmental disabilities face and how we can support them to achieve their full potential.

By working together, we can build a stronger, more inclusive Ontario, now and for future generations.

Best wishes for a productive and inspiring symposium.

A handwritten signature in black ink, appearing to read 'Doug Ford'.

**Doug Ford**  
**Premier**



**Ministry of Health**

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and Minister of Health

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November 16, 2023

**Holland Bloorview Kids Rehabilitation Hospital  
18<sup>th</sup> Annual BRI Symposium**

Dear friends:

On behalf of Premier Ford and the Ontario government, I would like to welcome everyone taking part in the 18<sup>th</sup> annual Bloorview Research Institute Symposium.

Ontario is home to a thriving research ecosystem and is a hub of innovation, and this symposium is an opportunity for everyone to learn more about the important advances being made in the field of childhood disability, including the ground-breaking strides the scientists at the Bloorview Research Institute are making.

My deepest appreciation goes out to the team at Holland Bloorview for your efforts to bring people together to share these new advances widely so that we can create a brighter future for children with disabilities and their families. Thanks to your efforts, children are being given new opportunities to achieve more than they have ever been able to before.

I wish you all the best for a successful and engaging symposium.

Sincerely,

A handwritten signature in black ink, appearing to read "Sylvia Jones".

Sylvia Jones  
Deputy Premier and Minister of Health





**Minister of Children, Community and Social Services**  
**Ministre des Services à l'enfance et des Services sociaux et communautaires**

September 29, 2023

### **A MESSAGE FROM THE HONOURABLE MINISTER PARSA**

I am delighted to extend greetings to all the participants attending the Holland Bloorview Kids Rehabilitation Hospital's 18th annual Research Institute Symposium. It's very encouraging to see that so many of the themes for this year's conference align with a number of the priorities I have as Minister of Children, Community and Social Services.

On behalf of Premier Ford and our entire government, I would like to thank the scientists at the hospital's Bloorview Research Institute for their ongoing commitment to the critical work they do to advance research in the area of childhood disability.

This year's theme ***Advancing horizons: personalized, equitable care and global partnerships through the power of childhood disability research*** will focus on the advances in childhood disability research and innovations that scientists at the hospital's Bloorview Research Institute are making. The findings from this research will help broaden opportunities for children and youth with disabilities.

The work of these researchers and scientists is helping to create a world where all children and youth living with disabilities can lead healthy and meaningful lives with promising futures — a goal that our ministry strives to ensure.

Please accept my best wishes for a successful and informative conference, and thank you again for your commitment to improving the lives of Ontario's next generation.

A handwritten signature in blue ink, appearing to read "Michael Parsa".

**Michael Parsa**

**Ministry of Colleges and Universities**

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November 16, 2023

**Greetings from the Honourable Jill Dunlop  
Minister of Colleges and Universities**



I am delighted to welcome participants to the 18<sup>th</sup> annual Bloorview Research Institute Symposium.

On behalf of the Ontario government, I would like to thank all the scientists, researchers and trainees at the Bloorview Research Institute for their dedication and efforts in advancing research on childhood disabilities in our province.

This year's theme, *advancing horizons: personalized, equitable care and global partnerships through the power of childhood disability research*, presents a fantastic opportunity to come together and learn about the ground-breaking research that is taking place across Canada.

Events like this showcase the province's commitment to research focused on improving the lives of Ontario's most vulnerable, and encourage the research community to share new ideas and lessons learned from some of their key discoveries and innovations. They are also often the birthplace of exceptional collaborations and connections, so I encourage you to make the most of this opportunity.

By continuing to work together, we can help create a world where children living with disabilities lead healthy lives and have bright futures.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jill Dunlop'.

The Honourable Jill Dunlop  
Minister of Colleges and Universities



## The Hon. Robert Oliphant, P.C., M.P.

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Don Valley West  
Don Valley-Ouest



November 16, 2023

Holland Bloorview Kids Rehabilitation Hospital  
150 Kilgour Road  
Toronto, ON M4G 1R8

### **18<sup>th</sup> Annual BRI Symposium – Advancing Horizons: Personalized, Equitable Care and Global Partnerships Through the Power of Childhood Disability Research**

I am very pleased to provide greetings and offer my sincere congratulations to Holland Bloorview on the occasion of the 18<sup>th</sup> Annual BRI Symposium.

Through the hard work of scientists and researchers at Holland Bloorview in the area of childhood disabilities, the lives of millions of children with disabilities have been improved in Canada and globally. The focus of this year's theme, including issues of equitable care and global partnerships is particularly significant as Canada continues to work with our international partners on building equitable healthcare around the world.

I wish you all the best for a successful Symposium and look forward to a continued working relationship with Holland Bloorview.

Yours sincerely,

The Honourable Robert Oliphant P.C., M.P.  
Don Valley West

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### **Message from the Mayor**

A warm welcome to everyone attending the 18<sup>th</sup> annual Bloorview Research Institute (BRI) Symposium.

This year's theme, "Advancing horizons: personalized, equitable care and global partnerships through the power of childhood disability research", highlights BRI's advancements into Canadian research and childhood disabilities. It is a great opportunity for attendees to learn about new ground-breaking research, discoveries, tools and actions to improve childhood healthcare.

A heartfelt thank you to the Holland Bloorview Kids Rehabilitation Hospital for your vital contributions in caring for children with special abilities. As a result of your staff's tireless efforts and expertise, we can equip children with the tools they need to thrive and grow.

The City of Toronto acknowledges with gratitude, organizations that are committed to making a difference in their communities and improving the well-being of Toronto residents.

On behalf of Toronto City Council, please accept my best wishes for an enjoyable event and continued success.

Yours truly,

A handwritten signature in blue ink, appearing to read "Olivia Chow".

Olivia Chow  
Mayor of Toronto

# Holland Bloorview

Kids Rehabilitation Hospital

## Welcome to the 18<sup>th</sup> annual Bloorview Research Institute symposium

It is with immense pride and anticipation that I welcome you to our 18th annual Bloorview Research Symposium, an opportunity to share ground-breaking innovations, impactful scientific advancements, thoughtful leadership and cross-disciplinary collaborative global partnerships.

Our journey to this remarkable point has been marked by an unyielding commitment to pushing the boundaries of what's possible. Today, you will have an opportunity to learn more about the ground-breaking work of our scientists, researchers and trainees who are working in close partnership with clients and their families, with our health teams in every corner of our hospital and with our academic partners to support Holland Bloorview's vision of the most meaningful and healthy futures for all children, youth and families.

With the recent completion of Bloorview Research Institute's \$32-million research expansion, which was funded entirely by the generosity of our donors, we will make an even greater impact on the lives of children and youth with disabilities and developmental differences through research and innovation.

We are equally energized by the launch of Holland Bloorview's bold new [seven-year strategic plan](#) that will chart a course to shape the future of Canada's largest pediatric rehabilitation hospital, unlocking a world of possibilities for all families and committed to the health of our extraordinary team. Developed with input from over 1,400 points of engagement staff, families, volunteers, government, community and healthcare partners, our plan, Transformative Care, Inclusive World: Holland Bloorview 2030, will be our 'north star' in re-imagining care that's agile, socially accountable and transformed by research and education.

Thank you to the many hands that have made this day possible and thank you for participating and sharing your perspectives.

I look forward to a day of incredible conversations, connections and insights that await us during this symposium.



A handwritten signature in black ink that reads "Julia Hanigsberg".

Julia Hanigsberg  
President and CEO

## Expanding research horizons, creating global impact

Welcome to the 18th Annual Bloorview Research Institute Symposium. This year's symposium marks some key pivotal moments in the history of advancing childhood disability and developmental research at Canada's only academic research institute dedicated to pediatric disability, and as one of Canada's top 40 research hospitals.

First of all, we are thrilled to unveil the Bloorview Research Institute's new seven-year strategic priorities. This plan represents our relentless pursuit to be a global leader in transformative, equity driven research dedicated to enabling personalized versions of a good life for individuals with childhood onset disabilities, acquired brain injury and developmental differences, their families and communities, throughout their lives. We're excited to share our vision and mission with you at today's symposium.

We are especially proud to announce this plan as we have completed the largest research expansion in the history of Holland Bloorview, which will support the critical research conducted by our scientists, researchers, and trainees with state-of-the-art research equipment, the new 11,000 square foot Jason Smith Research Tower and fully accessible, open-concept space to foster collaboration.

Throughout today's symposium, you will hear from our scientists, researchers and trainees as they present their research discoveries and cutting-edge innovations. We are honoured to have Professor Petrus de Vries who will deliver this morning's Mickey Milner International Professorship keynote on the need for global research to meet the needs of local communities. Dr. Gaynor Watson-Creed will give her keynote address on concepts of anti-oppressive practice and ways in which the practice and profession of medicine has been complicit in upholding forms of oppression.

As today's event co-hosts, we hope you have a chance to see the presentations, go on a tour of our new research institute, check out some of the demonstrations to see our research in action, and engage with our scientists, researchers and trainees, all who are eager to share with you their latest research projects and initiatives.

We look forward to building new connections with everyone during today's proceedings.



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Dr. Evdokia Anagnostou  
Vice President, Research  
Event Co-Host



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Tharsiny Markandu  
Family Leader  
Event Co-Host



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Ivona Novak  
Family Leader  
Event Co-Host

# Event agenda

- 9 to 9:30 am **Meeting Opening**  
Presented by: Elder Wanda Whitebird
- 9:30 to 9:50 am **Welcoming remarks**  
Julia Hanigsberg, President and CEO, Holland Bloorview Kids Rehabilitation Hospital  
Dr. Mary Forhan, Associate Professor and Chair, Department of Occupational Science & Occupational Therapy, Temerty Faculty of Medicine, University of Toronto  
*Co-hosts:*  
Dr. Evdokia Anagnostou, Vice-President of Research and Director of the Bloorview Research Institute  
Tharsiny Markandu, Family Leader and morning co-host  
Ivona Novak, Family Leader and afternoon co-host
- 9:50 to 10:10 am **BRI strategic priorities presentation**  
*Presented by:* Dr. Evdokia Anagnostou and Liam Cosgrove, youth ambassador
- 10:10 to 11:10 am **Keynote: Mickey Milner International Professorship Lecture**  
**Why we need global research to meet the needs of local communities**  
*Presented by:* Professor Petrus de Vries, Struengmann Professor of Child & Adolescent Psychiatry, Division of Child & Adolescent Psychiatry, University of Cape Town, South Africa and Founding Director, Centre for Autism Research in Africa (CARA)
- 11:10 to 11:30 am **Quick Hit Presentations**
- 11:30 am to 12:15 pm **Co-designing authentic, meaningful research engagement: lived experience perspectives**  
*Panelists:*
- Pat Furlong, president and founder of Parent Project Muscular Dystrophy
  - William Goessart, Orthotics and Prosthetics technician and Holland Bloorview client
  - Terry Pirovolakis, founder of CureSPG50
  - Shirley Wynne, parent from Kashechewan First Nation
  - Tesla Koostachin, parent from Attawapiskat
- Moderator:** Dr. Melanie Penner, senior clinician scientist, Bloorview Research Institute

- 12:15 to 1:15 pm **Lunch/Research Poster Sessions/Self Guided Tours and Demos/Exhibition Showcase**
- 1:15 to 2:15 pm **Breakout Session #1**  
**Driving Change: The Transformative Impact of Knowledge Mobilization and Commercialization in Pediatric Rehabilitation**
- Breakout Session #2**  
**Data, AI, and Personalized Health: Successes, Opportunities, and Challenges**
- 2:15 to 3:15 pm **IDEAA Keynote**  
**Rethinking EDIA in 2023**  
*Presented by:* Dr. Gaynor Watson-Creed, Associate Dean of Serving and Engaging Society and Assistant Professor in the Department of Community Health and Epidemiology, Dalhousie University
- 3:15 to 3:45 pm **BRI Research Talks**  
**Testing a movement-tracking video game for upper limb rehabilitation: a family-centred approach for children with cerebral palsy living in Costa Rica**  
*Presented by:* Dr. Elaine Biddiss, senior scientist, PEARL Lab, Bloorview Childrens Hospital Foundation Chair in Pediatric Rehabilitation
- Mental health and concussion**  
*Presented by:* Dr. Shannon Scratch, clinician scientist, NOVEL Lab, and Holland Bloorview Family Professorship in Acquired Brain Injury
- 3:45 to 4 pm **Listening to the Margins: Art Exhibit Introduction and Viewing**  
*Presented by:* Zehra Kamani, research coordinator, EPIC (Engagement & Planning for Inclusive Communities) Lab
- 4 to 4:30 pm **Reception (Coriat Atrium)**
- 4:30 to 5:30 pm **Awards Ceremony and Closing Remarks**

**#BRISymposium2023**  
**@HBKidsHospital**





# Bloorview Research Institute Strategic Priorities 2023-2030

## **Vision**

To be a global leader in transformative, equity-driven research dedicated to enabling personalized versions of a good life across the lifespan, for all individuals with childhood onset disabilities, acquired injuries and developmental differences, their families and communities.

## **Mission**

Through trusted, diverse and transdisciplinary local, national and international partnerships and co-design with children, youth, families and communities, we will:

- advance the understanding of disability and developmental differences to promote physical and mental health, participation and wellbeing across the lifespan.
- propel precision health discoveries through data science, integrating biological, psychological and social aspects of health and wellness.
- mobilize knowledge and evidence-based practices, technologies, treatments and interventions nationally and globally.
- use an inclusion, diversity, equity, accessibility and anti-racism (IDEAA) informed approach in all of our work.
- empower and support research teams by providing the resources, skills and technology required to inspire research excellence and impact.

Built on the voices of over 100 scientists, investigators, researchers, research staff, trainees, hospital leadership, youth and families, and advocacy groups and aligned with the hospital's *Holland Bloorview 2030* strategic plan, BRI's four strategic priorities will guide our work for the next 7 years.

### Advance research practices through IDEAA

Co-create inclusive, diverse, equitable, accessible and anti-racist research practices that confront inequities across all stages of the research lifecycle, from training, hiring and promotions to study design, recruitment and dissemination.



### Fuel precision health

Conduct research powered by data science and artificial intelligence (AI) to advance precision health solutions that consider the interconnection between biology, psychology, and socio-environmental factors for individuals with childhood onset disability, acquired injury and developmental differences.



### Empower a thriving research community

Co-create a supportive, meaningful and collaborative work environment where well-being, psychological safety and belonging are promoted and excellence, growth and development can flourish.



### Enable transformational impact

Propel transformative discoveries into public discourse to empower widespread access to the evidence needed to support optimal health, development, wellbeing and participation across settings, locally, nationally and internationally.



Download and share the plan at:  
[HollandBloorview.ca/BRI](https://HollandBloorview.ca/BRI)



# Co-designing authentic, meaningful research engagement: lived experience perspectives

At Holland Bloorview, clients and families inform everything we do, from co-designing research with scientists to co-developing personalized interventions and treatments with our clients. But what does authentic, meaning engagement look like? What are the barriers that researchers need to overcome? These are some of the questions this lived experience panel will explore on how researchers can foster more authentic and meaningful research engagement to enable personalized versions of a good life for all.

## Panelists

**Terry Pirovolakis**, Founder of [CureSPG50](#)

**Pat Furlong**, Founding President and CEO of Parent Project Muscular Dystrophy

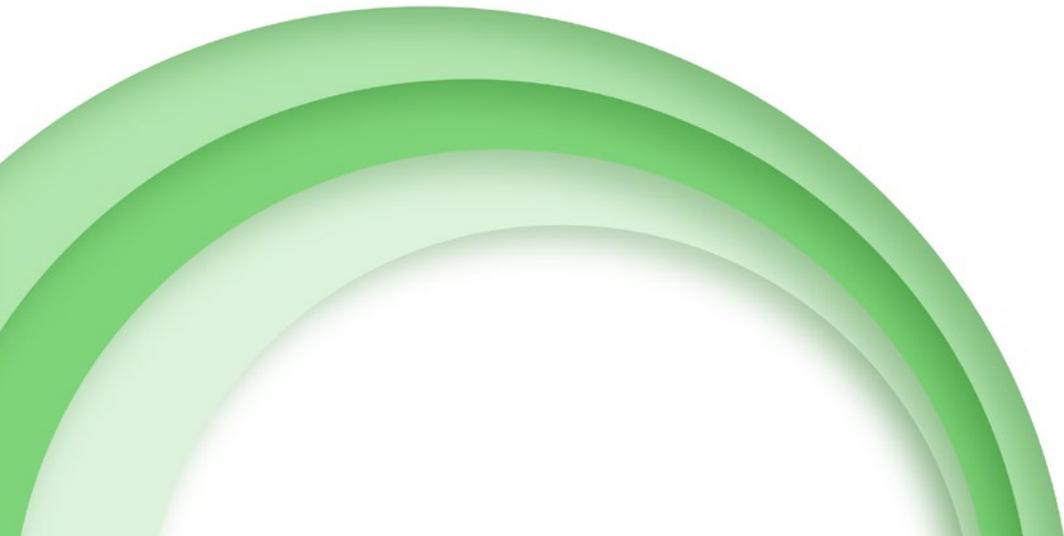
**William Goessart**, prosthetics and orthotics technician at Holland Bloorview and client (patient)

**Tesla Koostachin**, parent from Attawapiskat

**Shirley Wynne**, parent from Kashechewan First Nation

## Moderator

**Dr. Melanie Penner**, senior clinician scientist and Developmental Pediatrician; Bloorview Childrens Hospital Foundation Research Chair in Developmental Pediatrics



# Mickey Milner International Professorship Lecture

## Why we need global research to meet the needs of local communities

**Professor Petrus J de Vries** MBChB, FRCPsych, PhD  
Struengmann Professor of Child & Adolescent  
Psychiatry, Division of Child & Adolescent Psychiatry,  
University of Cape Town, South Africa and Founding  
Director, Centre for Autism Research in Africa (CARA)



About 95% of children with developmental disabilities live in low- and middle-income countries (LMICs) that are culturally, linguistically and socio-politically highly diverse. Concerningly, less than 5% of research is conducted in LMICs. This raises questions about the relevance of existing research to parts of the world, especially LMICs, where it is most urgently needed. In this presentation, we will discuss the importance of building global communities of research to reduce gaps both in knowledge and research readiness, reflect on why we need to connect research with practice to ensure a global impact, and, perhaps paradoxically, consider how global research can help to meet local needs. We will use examples from research on autism in Africa and global rare diseases.

### Biography

Dr. Petrus de Vries is the Struengmann Professor of Child & Adolescent Psychiatry and Founding Director of the Centre for Autism Research in Africa (CARA) at the University of Cape Town.

Dr. de Vries trained in Medicine at Stellenbosch University in South Africa before moving to the UK where he completed his clinical training in Psychiatry and Child & Adolescent Psychiatry, and a PhD in Developmental Neuroscience at the University of Cambridge. He returned to South Africa in 2012.

Since de Vries's return to Africa, his research has focused on global autism, neurodevelopmental and child & adolescent mental health and on implementation science in low- and middle-income settings. He has worked closely with the World Health Organization's child & adolescent psychiatry team on various projects related to autism and developmental disabilities. He was a participant in the 2022 Lancet Commission on autism. Apart from his interest in autism, he has a longstanding clinical research program in Tuberous Sclerosis Complex and its associated neuropsychiatric disorders. He has a particular passion for global research capacity-building in autism, neurodevelopmental disabilities and child & adolescent mental health.

Dr. de Vries previously was chairman of the Society for the Study of Behavioural Phenotypes, chair of the African Division of the Royal College of Psychiatrists, treasurer of the International Association of Child & Adolescent Psychiatrists and Allied Professions and president of the South African Association of Child & Adolescent Psychiatrists and Allied Professions. He is the current president of the International Society for Autism Research.

# Inclusion, Diversity, Equity, Accessibility and Anti-Racism (IDEAA) Keynote

## Rethinking EDIA in 2023

Dr Watson-Creed's keynote, *Rethinking EDIA in 2023*, will invite participants to be reminded of the ways in which the practice and profession of medicine has been complicit in upholding forms of oppression, using racism as the primary example. Her talk will also introduce the concept of anti-oppressive practice, including the concepts of identity, intersectionality, and power. Finally, Dr. Watson-Creed will ask delegates to reflect on the biases we are left with and how we might react with fragility when they are exposed.



### Biography

Dr. Gaynor Watson-Creed is the Associate Dean of Serving and Engaging Society for Dalhousie University's Faculty of Medicine, and Chair of the Board of Engage Nova Scotia. She is a public health specialist physician with 18 years experience, having served as the former Medical Officer of Health for the Halifax area and Deputy Chief Medical Officer of Health for Nova Scotia. Dr. Watson-Creed is from PEI and received chemistry degrees from UPEI and University of Guelph before attending Dalhousie University for her MD in 1995. From there, she attended McMaster University where she received board certifications in family medicine in 2001 and in Public Health and Preventive Medicine in 2005. She sits as chair or member of several population health councils and boards nationally, including the Examination Board for the Royal College of Physicians and Surgeons of Canada, and the Board of Community Food Centres of Canada.

She is co-chair of the Advisory Council to the National Collaborating Centre for Determinants of Health and a former member of the CIHI Advisory Council on Population Health. Dr. Watson-Creed sat on the One Nova Scotia Coalition and received the William Grigor award for achievement in medicine from Doctors Nova Scotia in 2017. In 2018 she was awarded the President's award from Public Health Physicians of Canada for her advocacy regarding public health systems and services in Canada. In 2019 she was named one of the Top 100 Most Powerful Women in Canada by the Women's Executive Network in recognition of the direction and support she has provided to so many initiatives.

Dr. Watson-Creed was named to the federal Task Force on Women in the Economy, co-chaired by Deputy Prime Minister Chrystia Freeland and Minister Mona Fortier, which completed its work in 2021. She currently serves as a member of the Province of Nova Scotia's Environmental Racism Panel, which was created by the provincial government in 2023. She was awarded the title Doctor of Science, honoris causa, by Acadia University in 2021 in recognition of her many contributions to Nova Scotia and to Canada over her career, and also received an honorary Doctor of Laws from the University of Prince Edward Island in 2023.

# BRI Research Talks

## Testing a movement-tracking video game for upper limb rehabilitation: a family-centred approach for children with cerebral palsy living in Costa Rica

**Dr. Elaine Biddiss**, senior scientist and Bloorview Childrens Hospital Chair in Pediatric Rehabilitation

### Biography

Dr. Elaine Biddiss is a senior scientist with the Bloorview Research Institute at Holland Bloorview Kids Rehabilitation Hospital, Associate Professor with the Institute of Biomedical Engineering and Member of the Rehabilitation Sciences Institute at the University of Toronto. She holds the Bloorview Childrens Hospital Chair in Pediatric Rehabilitation. With her team, the Possibility Engineering and Research Lab or PEARL, Dr. Biddiss is dedicated to creating and evaluating innovative games and apps that support young people of all abilities to achieve their goals in both recreation and rehabilitation. She embraces an interdisciplinary design approach and enjoys the challenges of integrating engineering, medicine, arts, and design. In 2021, Dr. Biddiss co-founded Pearl Interactives, a start-up dedicated to translating her team's research innovations into the hands of kids, their families, and clinicians. Read about Dr. Biddiss' research publications [here](#). Read her full [bio](#).



## Mental health and concussion

**Dr. Shannon Scratch**, clinician scientist and Holland Family Professorship in Acquired Brain Injury

### Biography

Dr. Shannon Scratch is a clinician scientist, clinical neuropsychologist and holds the Holland Family Professorship in Acquired Brain Injury. She is also director of the NOVEL (Neurorehab Outcomes via Education and Learning) Lab. Her research focuses primarily on developing and exploring novel ways to help children with acquired brain injuries and concussions recover and reach their full potential. This means co-creating toolkits with teachers to teach educators about ABI to support students in their classrooms, or developing assessment tools for clinicians to use when evaluating when their concussed clients can return to playing sports, among other research projects. Read about Dr. Shannon Scratch's research publications [here](#). Read her full [bio](#).



# Breakout sessions

## Breakout Session #1

### Driving Change: The Transformative Impact of Knowledge Mobilization and Commercialization in Pediatric Rehabilitation

The intersection of knowledge mobilization and commercialization are critical to translating research into practice to create real impact. The scientists, commercialization and knowledge mobilization experts on this panel will share their experiences, challenges, and strategies, and discuss avenues for improvement and global growth.

#### Panelists

**Sharon Wong**, director of commercialization, Holland Bloorview's Bloorview Research Institute

Sharon Wong is the director of commercialization at Holland Bloorview's Bloorview Research Institute. Since joining in 2017, Wong's mission is to enable a health and meaningful future for clients and families by making transformational innovations developed by BRI researchers accessible to those who can benefit from these technologies. These innovations include cutting-edge assistive technologies such as brain-computer interfaces or the Hummingbird, devices that empower children and youth to connect to their world and express themselves independently.



**Dr. Jessica Brian**, senior clinician scientist, psychologist, co-lead of the Autism Research Centre

Dr. Jessica Brian is a clinical psychologist and senior clinician-scientist at Holland Bloorview Kids Rehabilitation Hospital, where she co-leads the Autism Research Centre, and is an associate professor at University of Toronto's Department of Paediatrics. She specializes in neurodevelopmental disabilities with a particular interest in early identification and supports in autism.



Dr. Brian has spent the last two decades collaborating in longitudinal research investigating the development of children at elevated likelihood for autism, followed from infancy into adolescence (Canadian Infant Sibling Study and Baby Siblings Research Consortium). Informed by this early identification work, Dr. Brian co-developed the Social ABCs, a parent-mediated intervention for toddlers showing early signs of autism or related challenges. She has a long history of training developmental paediatric fellows, psychology interns and community providers (paediatricians, psychologists, early childhood educators) in early detection, assessment, diagnosis and supports for autistic children and youth and their families.

**Christine Providenza**, knowledge translation lead, Evidence to Care and NOVEL Lab, Bloorview Research Institute

Christine has a wide-range of expertise in research, program and product development, and experience with and a passion for knowledge translation (KT). Her work has focused on the development, dissemination and implementation of KT products while using best practices from KT and implementation science. Christine has created various KT products, addressing topics including concussion, peer support, weight-related conversations and sexuality and disability. Her work has engaged and targeted a wide array of audiences such as clients and families, healthcare providers, researchers and educators.



**Dr. Jan Andrysek**, senior scientist, Bloorview Research Institute

Dr. Jan Andrysek is a senior scientist in the Bloorview Research Institute of Holland Bloorview Kids Rehabilitation hospital, Canada's largest teaching hospital focused on paediatric disabilities. He is an associate professor within the Institute of Biomedical Engineering, University of Toronto. His research program focuses on the development and improvement of treatments and assistive technologies for children and adults with physical impairments. He is also the co-founder and Chief Technical Officer at Legworks Inc., a social for-profit enterprise focused on improving prosthetic technologies and care for individuals with amputations worldwide.



### Moderator

**Christa Studzinski**, director of business development and partnerships, Ontario Brain Institute

Christa Studzinski has spent the last 12 years working at the Ontario Brain Institute, where she creates partnerships that help get evidence-based solutions into the community, where people are living with and receiving care for their brain disorders. As the director of business development and Partnerships, she is engaging patient and community groups in the co-development and real-world validation of neurotechnologies; and working with multinationals to help them de-risk their investments into neurotech. In her previous role at OBI, she helped launch the Integrated Discovery Programs, which include CP-NET and POND. Prior to joining OBI, she completed post-doctoral fellowships at the University of Kentucky and the University of Toronto. While completing her PhD in Pharmacology from the University of Toronto, she also co-founded a contract research organization and participated in research that led to the FDA approval of a medical food for Alzheimer's disease.



# Breakout sessions

## Breakout Session #2

### Data, AI, and Personalized Health: Successes, Opportunities, and Challenges

Precision health is a proactive and personalized approach to care where interventions, services, and accommodations are informed by each individual's biology and environment. This panel will focus on the transformative potential of artificial intelligence (AI) for health applications. Panelists will share success stories and lessons learned from real-world experiences, and discuss opportunities and challenges in harnessing AI to address the needs of children with developmental differences, disabilities, and acquired injuries.

#### Panelists

**Peter Welsh**, family leader

Peter Welsh is a dedicated family leader at Holland Bloorview for the past several years. As a volunteer, he has generously given his time and his family's lived experience perspective as a member of the hospital's Research Family Engagement Committee and ASD Pathways working group. He has been married for more than 25 years to his wife Linda and has two amazing children, Emily and Gareth, who lives with autism and has participated in research projects at Holland Bloorview. To Peter, family engagement in research helps to ensure that the work scientists do will be relevant to families like Peter's, who can benefit from these new discoveries, therapies and treatments. In his spare time, he enjoys going to the gym with his son and has run a Friday night virtual drop-in for Autism Dads for over three years with participants joining from several countries.



**Dr. Marc Fiume** - co-founder and CEO, DNASTack

Dr. Marc Fiume is an entrepreneur and opinion leader in genomics data sharing. He earned his PhD in computer science from the University of Toronto in 2015, and is now co-founder and CEO of a company called DNASTack.

DNASTack's mission is to save and improve lives by unlocking the collective power of the world's genomics and health data.

To drive this mission forward, DNASTack recently launched Omics AI - a software suite that enables privacy-preserving federated insights across distributed data. This software powers the Autism Sharing Initiative, a collaboration dedicated to building the world's largest federated network of genomics and related datasets for autism.



For these and other efforts, DNASTack was recognized by the World Economic Forum as one of a hundred global Technology Pioneers in 2022, and was officially named as Company of the Year for 2023 by Life Sciences Ontario.

**Dr. Fahad Razak**, internist at St Michael's Hospital, senior fellow at Massey College, and Canada Research Chair in Data-Informed Health Care Improvement at the University of Toronto



Dr. Razak is an internist at St Michael's Hospital, Senior Fellow at Massey College, and Canada Research Chair in Data-Informed Health Care Improvement at the University of Toronto. His research focuses on improving the care of hospitalized patients through application of advanced analytic methods. He co-founded [GEMINI](#), the largest hospital research network in Canada. Dr. Razak completed a degree in engineering science and medical doctorate at the University of Toronto. He was the first physician to be appointed the [David Bell Fellow](#) at Harvard University and was the prior scientific director of the [Ontario COVID-19 Science Advisory Table](#).

**Dr. Anna Goldenberg**, senior scientist at The Hospital for Sick Children; associate professor, UofT Department of Computer Science; Varma Family Chair in Biomedical Informatics and Artificial Intelligence (AI) at The Hospital for Sick Children (SickKids) Research Institute



Dr. Goldenberg obtained her PhD at Carnegie Mellon University in machine learning and did her post doctoral training at Penn Centre for Bioinformatics and then the Donnelly Centre. She is the first Varma Family Chair in Biomedical Informatics and Artificial Intelligence (AI) at The Hospital for Sick Children (SickKids) Research Institute, where she also co-leads the AI in Medicine for Kids (AIM) initiative. She is a CIFAR AI Chair and a fellow of CIFAR's Child and Brain Development group. Additionally, she is the research theme co-lead at the Temerty Centre for Artificial Intelligence Research and Education in Medicine (T-CAIREM) where she helps foster innovation in AI in Medicine research. The current focus of her lab is on developing machine learning methods for clinical use across diseases and conditions as well as quantifying the variability in the healthy state of individuals as well as across populations with the help of wearables. She is director of the AI for Healthcare Masters Program in Computer Science and LMP. In this role, she will develop and lead world-class educational programs in computational medicine and computational biology while fostering collaborations with relevant departments, the Vector Institute for Artificial Intelligence, and T-CAIREM.

### Moderator

**Dr. Azadeh Kushki**, associate chief of data science and senior scientist, Bloorview Research Institute

Dr. Azadeh Kushki is the associate chief of data science at the Bloorview Research Institute, Senior Scientist at the Holland Bloorview Kids Rehabilitation Hospital, associate professor at the Institute of biomedical engineering at the University of Toronto, and the analytics lead for the Province of Ontario Neurodevelopmental Disorders (POND) Network. Dr. Kushki's research focuses on the application of data science approaches to characterize neurodevelopmental diversity, and to inform personalised health approaches for neurodivergent children.



# Listening to the margins: Art exhibition

Listening to the Margins is an art exhibit that explores the complex experiences intersecting race, disability/illness and healthcare. Curated by Joseph Cannizzaro, the exhibit disseminates knowledge from a SSHRC-funded 2022 conference led by Toronto Metropolitan University (TMU) Professor Dr. Fiona Moola, which focused on building dialogue around issues of childhood disability and race in Canada. The exhibit also showcases findings from the SANI (Services, Access, Navigation, Interpretation) Project, a research study initiated by TMU's Dr. Moola and Bloorview Research Institute's Dr. Tim Ross who leads the [EPIC Lab](#). Using both arts-based activities and interviews with racialized youth with disabilities, their parents or caregivers and the healthcare providers who serve them, the SANI Project explores rich and complex themes, including the barriers and emotions experienced by racialized youth and families with disabilities while navigating Ontario's pediatric healthcare system. As a combination of products from two projects with similar goals, the exhibit features artwork from both community artists and research participants to uncover and question existing biases in our healthcare system.



**Zehra Kamani**, research coordinator, EPIC Lab, Bloorview Research Institute

Zehra is a research coordinator who works in the Engagement & Planning for Inclusive Communities (EPIC) Lab led by scientist Tim Ross. Prior to joining the EPIC Lab, she completed a Master of Arts degree in Psychology at York University and worked on numerous clinical research projects in pediatric health care settings. Zehra is playing a key role in the SANI (Services, Access, Navigation, Interpretation) research project, which aims to understand how racialized youth with disabilities and their families experience health care. She is also a freelance writer who writes passionately about topics such as mental health, parenting, and disability awareness. She has been published by *CBC*, *Best Health* magazine, and *Today's Parent* magazine.



# Partnership showcase

Holland Bloorview enjoys strong collaborative relationships with industry and other external partners, in efforts to advance scientific, commercial and social impact. Visit our Partnership Showcase to see and experience some examples of successful collaborations, foster new partnerships and explore the potential impact of research here at the Bloorview Research Institute!

## Featured exhibitors:



### FABLE

Presenters: **Shane Kehoe**, **Patrick Angara**

Fable is a leading accessibility platform powered by people with disabilities. Fable moves organizations from worrying about compliance to building incredible and accessible user experiences. Digital teams work with Fable to improve accessibility for over 1 billion people with disabilities. Fable Engage connects digital teams to people with disabilities remotely and on-demand for accessibility research and testing. Fable Upskill provides custom accessibility training for digital teams to gain skills to build inclusive products. To learn more, visit <https://makeitfable.com>.



### QUILLSOFT

Presenters: **Fraser Shein**, founder and CEO, **David Lester**, vice-president of sales Americas

Quillsoft Ltd., founded in 2000 in partnership with Holland Bloorview, operates in the education space as part of the Nisai Group (UK). Quillsoft and Nisai offer solutions involving both technology and online teaching to support learners with learning differences and those who are neurodiverse, and in general, anyone facing barriers to reading and writing for any reason. Nisai's Holistic English Language Proficiency Programme (N-HELPP) brings together evidence-based practice and experience using online teaching along with Units of Sound and Quillsoft's WordQ software to help individuals with their English communication skills. Units of Sound is a multi-sensory English language program that supports reading, writing and memory development through structured teaching tasks. WordQ is a simple-to-use tool that helps students create better quality writing with greater independence and confidence. These help students develop the skills and confidence they need to learn for life and thrive in school and in the workplace.



## TREXO

Presenters: **Grace Chen, Marc Robert, Jenn Horowitz**

Trexo Robotics is a pioneering company that is redefining mobility solutions for people of all ages and abilities. With a primary focus on the underserved children's market, Trexo is using state-of-the-art robotics to make walking a reality for children with disabilities. The company was founded in 2011 by Manmeet Maggu and Rahul Udasi, who were inspired to develop a device to help Manmeet's nephew, who was diagnosed with cerebral palsy. Trexo's innovative device, the Trexo Home Robotic Gait Trainer, is the first wearable robotic device designed to enable children with disabilities to experience walking in a stable and independent manner. Trexo's mission is to create a device that is trusted by physical therapists, affordable for parents, and loved by children.



## Becoming You: Exploring Sexuality and Disability for Pre-Teens

Presenters: **Dr. Amy McPherson**, senior scientist, BRI; **Christine Provvidenza**, lead, knowledge translation; **Emily Cox**, research assistant; **Francis Routledge**, student

Becoming You is a unique online resource developed by Holland Bloorview Kids Rehabilitation Hospital for preteens with disabilities and their parents/caregivers to explore questions and spark conversations around sexuality and sexual identity. Pre-teens can watch and listen to the book or they can download it as a fully accessible pdf. The book was co-created by researchers at Holland Bloorview's Bloorview Research Institute in partnership with lived experience collaborators and reviewed by a team of family leaders and clinical specialists.

This one-of-a-kind resource is part of the Disability and Sexuality Resource Hub, an online hub for young adults, parents, caregivers, educators and healthcare providers to have an open dialogue around disability and sexuality. The hub contains video impact stories, conversation guides, books, resources, research on sexuality and much more.

The development of the Disability and Sexuality Resource Hub is supported by the Social Sciences and Humanities Research Council and the Holland Bloorview Kids Rehabilitation Hospital Foundation.

Learn more: [hollandbloorview.ca/sexuality](http://hollandbloorview.ca/sexuality)

### Family Leadership Program

Presenters: **Suzanne Jorisch**, family leader and member of the RFEC, and **Shannon Scratch**, clinician scientist

The Bloorview Research Institute (BRI) works with the Family Leadership Program to engage families in all parts of research done at the BRI. Family Leaders can use their lived experience to offer feedback on current or upcoming research projects, join a research team, or help to implement findings into care. Families can also join the Research Institute Family Engagement Committee (RFEC), which informs BRI strategy and initiatives by identifying the needs and priorities of clients and families. RFEC members include family members of Holland Bloorview clients, current or former clients, and staff in the hospital and BRI.



# Elevating the family voice in research

## The impact of client and family engagement in research

At the heart of all research studies and projects at the Bloorview Research Institute lies our clients and families. From the initial research concept to the completion of a study, scientists and researchers work hand-in-hand with their clients and families every step of the way.

Here is what some of our families and researchers had to say:

“ I would never do a project now without them [Family Leaders]. It's been the best thing ever.  
– *BRI researcher*

“ If I can be a player in making system change and more opportunities exist for the kids in healthcare, then I think I'm getting a lot out of it.  
– *Family leader*

“ As a family member who has been engaged in research, I'm learning about the world that my daughter is in – it's a huge benefit.  
– *Family leader*

“ I will say that external to Holland Bloorview, it's a rare moment when a colleague really gets it (family engagement in research), and sees the value. They are willing, and they think it's important, but they don't take that next step.  
– *BRI researcher*

“ [The family leader] changed our entire research question. We would never have thought of that.  
– *BRI researcher*

“ Research for families represents HOPE.  
– *Family leader*

# Quick hits

Each year, the Bloorview Research Institute welcomes over 100 graduate and doctoral students, otherwise known as trainees, from universities across Canada and beyond to study alongside some of the world's leading scientists and gain first-hand knowledge on the latest advancements in childhood disability research. The BRI symposium is one of several events where these trainees can showcase their research to a broad audience. This year, a committee comprising scientists across the BRI chose the top seven students' 'quick-hit'-style research presentations from 20 submissions. These students will present their compelling research in three minutes as a research pitch.

**1. Evaluating the reliability of virtually obtained Upper Limb Motor Assessments for children with Cerebral Palsy**

Presenter: Atty Yazdy

Authors: Atty Yazdy, Aimee Chin-A-Young, Sarah Morris, Leona Noble, Carlie Thornber, Victor Tran, Elaine Biddiss, F. Virginia Wright, Daniela Chan Viquez

**2. Community provider perspectives on an autism learning health network: A qualitative study**

Presenter: Josie Kearney

Authors: Josie Kearney, Catherine Bosyj, Victoria Rombos, Melanie Penner

**3. Towards user-centric brain-computer interface design: Unsupervised learning and Markov chain-based methods to understand user capabilities**

Presenter: Nicolas Ivanov

Authors: Nicolas Ivanov, Aaron Lio, and Tom Chau

**3. Machine Learning for Holistic, Long-Term Rehabilitation Monitoring**

Presenter: Gabriel Ng

Authors: Gabriel Ng, Aliaa Gouda, and Jan Andrysek

**4. Barriers and Facilitators to the Social ABCs caregiver -mediated intervention for toddlers with emerging autism spectrum disorder**

Presenter: Erin Dowds

Authors: Erin Dowds and Jessica Brian

**5. Exploring predictors of participation from preschool to school aged children with cerebral palsy**

Presenter: Daniela Testani

Authors: Daniela Testani, Gillian King, Sarah Munce, Heather Shearer, and Darcy Fehlings

**6. A Preliminary Investigation of E-I balance as a Potential Marker of Adaptive Functioning in ASD**

Presenter: Azadeh Aghamohammadi Sereshki

Authors: Azadeh Aghamohammadi-Sereshki, Marlee M. Vandewouw, Lucia Capano, Julia Frei, Rob Nicolson, Jany Lim, Evdokia Anagnostou and Azadeh Kushki

# Poster sessions

At the Bloorview Research Institute, scientists, researchers and trainees are co-creating transformative, equity-driven research with clients and families to enable healthy futures for children and youth living with developmental differences and disabilities, and their families in Canada and worldwide.

Here are this year's research poster presentations featured during the symposium from 12:15 to 1:15 p.m. Please stop by and have a chat with our presenters to learn more about their incredible research.

- 1. Barriers and facilitators to obtaining accessible housing among children, youth and young adults with disabilities and their families: A scoping review**  
Presenters: Sally Lindsay, Kristina Fuentes, Yiyang Li  
Authors: Lindsay S, Ragnathan S, Fuentes K, Li Y
- 2. Understanding the benefits and challenges of outpatient virtual care during the COVID-19 pandemic in a Canadian pediatric rehabilitation hospital**  
Presenter: Sally Lindsay  
Authors: Ragnathan S, Kingsnorth S, Zhou L, Kakonge L, Cermak C, Hickling A, Wright V
- 3. Factors influencing dataset-specific developmental changes of brain structure and function in neurodivergent children**  
Presenter: Marlee Vandewouw  
Authors: Marlee M. Vandewouw, Yifan (Julia) Ye, Jennifer Crosbie, Russell J. Schachar, Alana Iaboni, Stelios Georgiades, Robert Nicolson, Elizabeth Kelley, Muhammad Ayub, Jessica Jones, Paul D. Arnold, Margot J. Taylor, Jason P. Lerch, Evdokia Anagnostou, Azadeh Kushki
- 4. Design and development of a diagnostic system to enhance trans-radial prosthetic fabrication**  
Presenter: Kansas MacKay  
Authors: Kansas Mackay, Calvin C. Ngan, Harry Sivasambu, Jan Andrysek
- 5. Exploring the experiences of ableism among Asian children and youth with disabilities and their families: A systematic review of qualitative studies**  
Presenters: Yiyang Li, Shaelyn Hsu  
Authors: Yiyang Li, Sharmigaa Ragnathan, Kristina Fuentes, Shaelynn Hsu, Sally Lindsay
- 6. Teach-ABI: An Online Professional Development Module to Help Educators Understand and Support Students with Acquired Brain Injury**  
Presenter: Andrea Hickling  
Authors: Marshall, SA., Lam, B., Hickling A., & Scratch SE.
- 7. Tracking experience-dependent neuroplasticity following physiotherapy-assisted gait rehabilitation using the Trexo robotic walker for children with cerebral palsy**  
Presenter: Stefanie Bradley  
Authors: Stefanie Bradley, Donald Mabbott, Virginia Wright, Tom Chau
- 8. A Preliminary Investigation of E-I balance as a Potential Marker of Adaptive Functioning in ASD**  
Presenter: Azadeh Aghamohammadi Sereshki  
Authors: Azadeh Aghamohammadi-Sereshki, Marlee M. Vandewouw, Lucia Capano, Julia Frei, Rob Nicolson, Jany Lim, Evdokia Anagnostou, Azadeh Kushki

# Poster sessions

- 9. Characterizing Diversity in the Neurobiology of autism, ADHD, OCD, and Neurotypical : A Graph Theory Approach on Structural MRI Data**  
Presenter: Younes Sadat-Nejad  
Authors: Younes Sadat-Nejad, Marlee M. Vandewouw , R. Cardy , J. Lerch, M. Taylor, A.Laboni , C. Hammill , B. Syed , J. A. Brian , E. Kelley , M. Ayub , J. Crosbie , R. Schachar ,S. Georgiades , R. Nicolson , E. Anagnostou and A. Kushki
- 10. Community provider perspectives on an autism learning health network: a qualitative study**  
Presenter: Josie Kearney  
Authors: Josie Kearney, Catherine Bosyji, Victoria Rombos, Melanie Penner
- 11. Racial disparities among children and youth with ABI and their caregivers: A systematic review**  
Presenter: Peiwen Cao  
Authors: Sally Lindsay, Yiyang Li, Peiwen Cao
- 12. Preliminary characterization of transradial prosthetic socket design**  
Presenter: Vishal Pendse  
Authors: Calvin C Ngan, Vishal Pendse, Harry Sivasambu, Elaine Ouellette, Neil Ready, and Jan Andrysek
- 13. A Decision Tree Approach to Understanding Cognitive-Adaptive Discrepancies In Children With Neurodevelopmental Conditions**  
Presenter: Eric Wan  
Authors: Eric Wan, Azadeh Kushki
- 14. Barriers and Facilitators to Implementation of Intensive Hand Therapies for Young Children with Cerebral Palsy in Canada**  
Presenter: Divya Vurrabindi  
Authors: Vurrabindi D, Hilderley A, Cassidy C, Chai J, McCoy S, Reist S, Tao C, Tao S, Cambridge L, Herrero M, O'Grady K, Leverington E, Micek V, Andersen J, Kirton A, Fehlings D
- 15. Experiences of racial disparities and racism in health care for youth with autism spectrum disorder and their caregivers: A systematic review**  
Presenters: Yiyang Li, Simran Joneja  
Authors: Yiyang Li, Simran Joneja, Shaelynn Hsu, Kristina Fuentes, Sally Lindsay
- 16. Demystifying listening: Research and knowledge translation strategies targeting an essential aspect of clinical practice**  
Presenter: Dr. Gillian King  
Authors: Kathleen M. Einarson, Gillian A. King, Marlaine Ramoodith, & the members of the CLEAR team
- 17. Demystifying 'resiliency' and exploring how to assess and enhance the adaptive self-capacities of youth with disabilities**  
Presenter: Madhu Pinto  
Authors: Kathleen M. Einarson, Gillian A. King, De-Lawrence Lamptey, Madhu Pinto & the members of the RASC research team
- 18. Brain Disruptions in Youth with Concussion Using the Adolescent Brain Cognitive Development Archival Dataset**  
Presenter: Elena Sheldrake  
Authors: Sheldrake, E., Wheeler, A. L., Goldstein, B. I., Reed, N., & Scratch, S. E.

# Poster sessions

- 19. Towards user-centric brain-computer interface design: Unsupervised learning and Markov chain-based methods to understand user capabilities**  
Presenter: Nicolas Ivanov  
Authors: Nicolas Ivanov, Aaron Lio, and Tom Chau
- 20. Examining and Validating the Integration of Digital Technology for Ankle-Foot Orthosis Registration**  
Presenter: Connor Matton  
Authors: Connor Matton, Emily Northcote, Grace Chung, Leanne Sanders, Lou da Silva, Jan Andrysek
- 21. Thinking Beyond Fidelity Targets - Considering Stress and Self-Efficacy in Parent-Mediated Interventions**  
Presenters: Kate Bernardi & Sara Daoud  
Authors: Kate Bernardi, Sara Daoud, Erin Dowds, & Jessica Brian
- 22. Exploring predictors of participation from preschool to school aged children with cerebral palsy**  
Presenter: Daniela Testani  
Authors: Destani, Daniela; King, Gillian; Munce, Sarah; Shearer, Heather; Fehlings, Darcy
- 23. Collaborative Knowledge Mobilization: The Evidence to Care approach to creating a guide capturing Holland Bloorview's Transitions practice**  
Presenter: Ashleigh Townley  
Authors: Townley, A., Provvidenza, C., Holman, S., Oh, A., Bowman, L., and Kingsnorth, S
- 24. Using Interactive Computer Play in Clinical Practice in Pediatric Rehabilitation**  
Presenter: Marina Petrevska  
Authors: Marina Petrevska, Jennifer L. Ryan, Selvi Sert, F. Virginia Wright, Elaine Biddiss
- 25. Modulation of human locomotion dynamics using persistent rhythmic cue sequences**  
Presenter: Jenny Tou  
Authors: Si Long (Jenny) Tou, Tom Chau
- 26. Automatic Gait Similarity Quantification using a Hidden Markov Model Similarity Metric (Lay Title: Machine Learning for Holistic, Long-Term Rehabilitation Monitoring)**  
Presenter: Gabriel Ng  
Authors: Gabriel Ng, Aliaa Gouda, and Jan Andrysek
- 27. Sentiment analysis of family engagement in research using lexicon-based method and support vector machine classifier**  
Presenter: Ledycnarf Holanda  
Authors: Ledycnarf Holanda, Insia Ali Raza, Masuma Akter, Tom Chau
- 28. Goal setting and concussion: A key component of a group-based intervention for youth**  
Presenter: Kylie Mallory  
Authors: Kylie Mallory, Andrea Hickling, Andrew Lovell, Hiba Al-Hakeem, & Shannon E. Scratch

# Poster sessions

**29. Wellness in Action: What Do Wellness Principles Look Like in Real-World Special Olympics Practices**

Presenter: Victoria Formosa or Dr. Amy McPherson

Authors: Victoria Formosa, Dr. Yani Hamdani, Dr. Nick Reed, Dr. Amy McPherson

**30. Identifying ethnic disparities in the severity of cerebral palsy**

Presenter: Bisman Mangat

Authors: Bisman Mangat, Lauren Switzer, Darcy Fehlings

**31. Validation of the Myant inertial sensor system for the continuous monitoring of gait**

Presenter: Elise Schwarz

Authors: Elise Schwarz, Harry Sivasambu, Gabriel Ng, Aliaa Gouda, Mobeen Akhtar, Jan Andrysek

**32. Barriers and Facilitators to the Social ABCs caregiver -mediated intervention for toddlers with emerging autism spectrum disorder**

Presenter: Erin Dowds

Authors: Erin Dowds & Jessica Brian

**33. Evaluating the reliability of virtually obtained Upper Limb Motor Assessments for children with Cerebral Palsy**

Presenter: Atty Yazdy

Authors: Atty Yazdy, Aimee Chin-A-Young, Sarah Morris, Leona Noble, Carlie Thornber, Victor Tran, Elaine Biddiss, F. Virginia Wright, Daniela Chan Viquez

**34. Access to autism spectrum disorder services for marginalized families in Canada: a scoping review**

Presenter: Selina Chow

Authors: Selina Chow BHSc MD(C), Oswin Chang BHSc MD(C), Thenugaa Rajeswaran BSc(C), Milena Gojsevic BSc(C), Iveta Lewis, Sharon Smile MBBS DM(Paed) MSc, Anne Kawamura MD, Rhea D'Costa MD

**35. Predictors of Depression in Autistic Youth – A Longitudinal Study using Data from the Province of Ontario Neurodevelopmental Disorders (POND) Network**

Presenter: Avery Longmore

Authors: Avery Longmore, Evdokia Anagnostou, Stelios Georgiages, Jessica Jones, Beth Kelley, and Danielle Baribeau

**36. Household food insecurity among children and youth in Canada: Does the intersectionality of childhood disability and racial identity/ethnicity matter?**

Presenter: Carolyn Tinglin

Authors: De-Lawrence Lamptey, Carolyn Tinglin & Gillian King

**37. In-Ear EEG Device for Auditory Brain-Computer Interface Communication**

Presenter: Laura Jean Wheeler

Authors: Laura Jean Wheeler, Tom Chau

**38. Evaluation of the Solution Focused Coaching in Pediatric Rehabilitation (SFC-peds) Strategy for Youth with Neuromuscular Conditions**

Presenter: Katherine Hull

Authors: Katherine Hull, Christina Ippolito, Dayna Frydman, Amy C. McPherson, Laura McAdam

# Poster sessions

**39. Predictors of Irritability in Autism:  
Scoping review**

Presenter: Sara Alatrash

Authors: Sara Alatrash, Azadeh Kushki

**40. Exploring the resiliency of caregivers and their children during the COVID-19 pandemic**

Presenter: Sonya Basarke

Authors: Sonya Basarke, Andrea Hickling, Brendan Lam, Amy McPherson, Shannon E. Scratch

**41. Predictors of mental health and behavioural crises in children and youth with neurodevelopmental disorders**

Presenter: Sophia Lenz

Authors: Sophia Lenz, Jesiqua Rapley, Emma Canning, Azadeh Kushki, Danielle Baribeau

**42. The Bootle Blast program: A videogaming and home-based upper limb rehabilitation intervention for children with cerebral palsy living in Costa Rica**

Presenter: Elaine Biddiss

Authors: Daniela Chan-Viquez, Heilyn Fernández-Huertas, Carles Montserrat-Gonzalez, Ajmal Khan, Darcy Fehlings, Sarah Munce, F. Virginia Wright, Elaine Biddiss

**43. Move&Connect-Caregivers: A virtual group intervention for caregivers of youth experiencing persistent post-concussion symptoms**

Presenter: Hiba Al-Hakeem

Authors: Hiba Al-Hakeem, Andrea Hickling, Kylie D. Mallory, Andrew Lovell, Tess Bardikoff, Christine Provvienza, Brendan Lam, Brenda Knapp, Carlin Miller, Shannon E. Scratch

**44. Post-Acute Speech and Language Outcomes Following Childhood Stroke: A Case Series**

Presenter: Christine Muscat

Authors: Christine Muscat, Angela Morgan, Shannon Scratch, Deryk Beal

**45. Evaluating the Efficacy of ECHO Ontario Autism Education**

Presenter: Mays Alhellawi

Authors: Mays Alhellawi, Lisa Kanisberg, Melanie Penner

**46. Implementing Co-Design in User Testing to Improve Usability and Relevance of a Wearable Biofeedback (BFB) System for Gait Rehabilitation**

Presenter: Katie Currie

Authors: Katie Currie, Mobeen Akhtar, Aliaa Gouda, Gabriel Ng, Harry Sivasambu, Jan Andrysek

**47. Home-based transcranial direct current stimulation to promote social communication and behaviour in children with autism spectrum disorder (ASD)**

Presenter: Norna Abbo

Authors: Norna Abbo, Trina Mitchell, Brendan Andrade, Evdokia Anagnostou, Deryk Beal

# Notable awards

## Dr. John Whittaker Memorial Cerebral Palsy Award

The Dr. John Whittaker Memorial Cerebral Palsy Award rewards outstanding contributions to research, service, or product developments that improve the quality of life of children and youth with cerebral palsy or other developmental disabilities.

The award was created by Dr. Whittaker's family and friends in recognition of his dedication to improving the quality of life of children with cerebral palsy and other developmental disabilities.

This year's Whittaker award will be awarded to two teams:

- **Dr. Darcy Fehlings, Dr. Nick Graham and the Liberi Team**



- **Susannah Van Damme and Jason Leung**



Congratulations to this year's winners!

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# Announcements

## Academic Promotion

Congratulations to **Dr. Sally Lindsay**, a senior scientist at the Bloorview Research Institute at Holland Bloorview. She has received



a well-deserved promotion to Full Professor at the University of Toronto's Department of Occupational Science and Occupational Therapy and the Rehabilitation Sciences Institute. As a senior scientist and head of the of the [TRAIL](#) (Transitions and Inclusive Environments) Lab, Dr. Lindsay is a trailblazer in research co-designing solutions with clients and families to address challenges that youth with disabilities face when it comes to social inclusion and well-being.

Congratulations, Dr. Lindsay!

## Associate Chief of Data Science at BRI

Congratulations to **Dr. Azadeh Kushki** as the Bloorview Research Institute's new associate chief



of data science. This new role will be in addition to her current role as a senior scientist in the Bloorview Research Institute. In this role, Dr. Kushki will lead the research institute's strategic priorities in precision health and support learning health system collaborations to create global impact for children with neurodevelopmental differences and disabilities.

Congratulations, Dr. Kushki!

# Graduate student awards

The BRI congratulates the 2023-2024 Graduate Student Scholarship Award recipients:

The **Kimel Family Graduate Student Scholarship in Pediatric Rehabilitation** winners are:

**Christine Muscat**, first-year PhD student in Rehabilitation Science, University of Toronto

*Project (under the supervision of Dr. Shannon Scratch): Teaching High School Educators about Acquired Brain Injury (TeachABI-HS)*



**Mahya Mirbagheri**, fourth-year PhD student in Biomedical Engineering, University of Toronto

*Project (under the supervision of Dr. Tom Chau): Enhancing Communication for Individuals with Complex Communication Needs: A Question-Answering System*



The **Kimel Family Graduate Student Scholarship in Paediatric Rehabilitation (Imaging)** winner is:

**Jenny Tou**, fourth-year PhD student in Biomedical Engineering, University of Toronto

*Project (under the supervision of Dr. Tom Chau): Brain modulation through music*



The **Kimel Family Graduate Student Scholarship in Pediatric Disability Research** winner is:

**Daniela Testani**, third-year PhD in Rehabilitation Sciences at the University of Toronto

*Project (under the supervision of Dr. Darcy Fehlings): Investigating and promoting participation in pre-school aged children with cerebral palsy*



The **Whipper Watson Graduate Research Scholarship** winner is:

**Stefanie Bradley**, former fourth-year PhD student in Biomedical Engineering, University of Toronto (recently completed PhD)

*Project (under supervision of Dr. Tom Chau): Quantifying the user experience, as well as neural, muscular, and functional gait changes following exoskeleton-powered gait rehabilitation in children with cerebral palsy and other mobility impairments*



# Notable awards

## BRI Trainee Awards for Excellence

The Bloorview Research Institute Trainee Executive's (BRITE) notable awards highlight trainees and beyond supervisors who go above and beyond to shape the next generation of researchers, scientists and clinicians:

### Excellence in Trainee Supervision

awarded to  
**Dr. Amy McPherson**



### Excellence in Trainee Support

awarded to  
**Andrea Hickling**



### Excellence in Peer Mentorship

awarded to  
**Calvin Ngan**



# Thank you for supporting BRI

- Alayatec
- Alberta Innovates Health Solutions
- American Academy of Child and Adolescent Psychiatry
- Autism Speaks
- Autism Speaks Canada
- Brain Canada
- Canada Foundation for Innovation
- Canada Research Chairs Program (CIHR)
- Canadian Institutes of Health Research (CIHR)
- Cerebral Palsy Alliance Australia
- CHEO Hospital Ottawa
- Children's Hospital Medical Centre
- Conrad Institute for Music Therapy Research Wilfred Laurier University
- Greater Toronto Hockey League
- Hamilton Health Sciences
- Holland Bloorview Kids Rehabilitation Hospital Foundation
- InVentiv Health
- Kids Brain Health Network
- Macquarie University
- McGill University
- McLaughlin Centre
- Ministry of Economic Development, Job Creation and Trade
- Ministry of Health and Long Term Care
- National Centres of Excellence
- National Sciences and Engineering Research Council of Canada
- Nestle
- Oculus
- Ontario Brain Institute
- Ontario Centres for Excellence
- OSSUR Inc.
- Province of Ontario – Minister Responsible for Accessibility
- Public Health Agency of Canada
- Roche Inc.
- Ronald Kimel Foundation Trust
- Shaftesbury Inc.
- Sick Kids
- Social Sciences and Humanities Research Council
- Special Olympics Canada
- SPOR Child Bright
- TD Bank Group
- The Azrieli Foundation
- The PROMPT Institute
- The Weston Family Foundation
- University of Alberta
- University of Calgary
- University of Oslo
- University of Toronto
- Vertex

# Holland Bloorview celebrates the largest expansion in its history



Holland Bloorview Kids Rehabilitation Hospital celebrated the completion of its historic Bloorview Research Institute (BRI) \$32-million expansion in June with the unveiling of its newly constructed, 11,000-square-foot Jason Smith Research Tower. The expansion also included the renovation of the research institute's existing 17,000 square foot research space. Through its new facilities, equipment and talent, the BRI is now home to the largest concentration of pediatric disability research in the world, thanks to the generosity of donors.

We believe it is our mission and responsibility to lead transformative research to understand the diverse experiences of children, youth, and families with neurodevelopmental differences and disabilities and enable them to live their best life as they see it," said Dr. Evdokia Anagnostou, vice president of research at Holland Bloorview, director of the BRI, and child neurologist. "This space will allow the BRI to expand our youth- and family-partnered research, while also allowing us to push boundaries by developing both personalized

interventions and interventions in our public spaces. We see a future where inclusive communities welcome diverse skills and contributions."

Holland Bloorview thanks all the donors who have contributed to this impactful campaign to support the following:

-  Canada's first fully accessible pediatric research MRI
-  New internationally-recognized scientists
-  New discovery hubs to house shared, state-of-the-art research equipment
-  An 11,000 square foot addition to accommodate the growth
-  Acceleration of commercialization activity so that children with disabilities and their families can enjoy healthy and meaningful lives

“

Research, for us, represents hope... the hope that something can change in our kid's life, that something can be possible in the future.

– *Manuela Comito, Parent*

Jason Smith  
FDC Foundation  
Raymond Chang Foundation  
Ali Ebrahim and Family  
Janis Rotman  
BMO Financial Group  
David Goodman  
The Kimel Family  
William & Susanne Holland  
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Gregory Steers  
Lawyers for Possibility

To learn more, visit: [HollandBloorview.ca/GrowHBRResearch](https://HollandBloorview.ca/GrowHBRResearch)



## About Bloorview Research Institute

The Bloorview Research Institute (BRI) is embedded within Holland Bloorview Kids Rehabilitation Hospital, Canada's largest pediatric rehabilitation hospital that is fully affiliated with the University of Toronto. It has ranked amongst Canada's top 40 research hospitals for more than a decade. The institute is the only university-affiliated research institute in Canada dedicated to pediatric disability and one of very few around the world.

The BRI brings together teams of top researchers and trainees from a wide array of disciplines including physicians, psychologists, allied health professionals, engineers, neuroscientists, sociologists and even urban planners. Together, they work collaboratively with the community to co-design and conduct transformative, clinically relevant research focused on childhood onset disability, injury and developmental diversity.



## About Holland Bloorview Kids Rehabilitation Hospital

Holland Bloorview Kids Rehabilitation Hospital creates a world of possibility by supporting children and youth living with disability, medical complexity, illness and injury. Holland Bloorview is a top 40 Canadian research hospital that is fully affiliated with the University of Toronto and serves over 8,000 families annually.

Providing both inpatient and outpatient services, Holland Bloorview is renowned for its expertise in partnering with clients and families to provide exceptional care and is the only organization to ever achieve 100 per cent in two successive quality surveys by Accreditation Canada.

Holland Bloorview is a founding member of Kids Health Alliance, a network of partners working to create a high quality, consistent and coordinated approach to pediatric health care that is centred around children, youth and their families.

For more information or to donate, please visit [hollandbloorview.ca](http://hollandbloorview.ca) or connect on Twitter, Facebook, Instagram, LinkedIn and parent-blog BLOOM.

## Holland Bloorview Kids Rehabilitation Hospital

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A teaching hospital fully affiliated with the University of Toronto