17th Annual Bloorview Research Institute Symposium

Rethinking Childhood Disability:

Imagination, Innovation and Inclusion

Monday, November 14, 2022









November 14, 2022

A MESSAGE FROM PREMIER DOUG FORD

I want to extend warm greetings to everyone taking part in the 17th Annual Bloorview Research Institute Symposium.

Over the past few decades, we've come a long way in understanding the challenges and potential of individuals with physical and developmental disabilities. With that understanding, we've been better able to help individuals living with disabilities fulfill their potential and participate in society.

In the spirit of this year's theme — *Rethinking Childhood Disability: Imagination, Innovation, Inclusion* — health care professionals from different disciplines, people from community groups, and social services groups will gather to focus on the many advances in childhood disability research made by scientists at the Bloorview Research Institute.

What excites me most is the potential of these new findings to create positive impacts and outcomes for families. Working together, we can help children living with disabilities lead their fullest lives.

Best wishes for a productive and inspiring symposium.

Doug Ford Premier

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Ministry of Colleges and Universities

Ministère des Collèges et Universités

Office of the Minister

Tel.: 416 326-1600

Bureau de la ministre

438 University Avenue, 5th floor Toronto ON M7A 0B8

438, avenue University, 5e étage Toronto ON M7A 0B8

Tél.: 416 326-1600

November 14, 2022

Greetings from the Honourable Jill Dunlop Minister of Colleges and Universities



I am delighted to welcome participants to the 17th Annual Bloorview Research Institute Symposium.

Our government sincerely thanks the scientists at the hospital's Bloorview Research Institute for their critical work advancing research in childhood disability. Events like this showcase Ontario's commitment to research in childhood disability by helping the research community share innovative ideas and recent cutting-edge discoveries.

This year's theme, Rethinking Childhood Disability: Imagination, Innovation, Inclusion, provides an opportunity for health professionals, families, scientists and governments to work together to develop and share advancements in childhood disability research to expand horizons for children and youth with disabilities.

Today's researchers are helping to create a world where all children and youth living with disabilities can lead healthy and meaningful lives with promising futures - a goal our government is truly proud to support.

Sincerely,

The Honourable Jill Dunlop

Minister of Colleges and Universities



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

Don Valley West Don Valley-Ouest



November 14, 2022

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

Re: 17th Annual BRI Symposium - Rethinking Childhood Disability: Imagination, Innovation, Inclusion

As the Member of Parliament for Don Valley West, it is my distinct pleasure to offer greetings to Holland Bloorview and all participants at the 17th Annual BRI Symposium.

I commend Holland Bloorview for your ground-breaking research and for being a world leader in healthcare dedicated to children with disabilities. I see first-hand the work that you are doing to improve the lives of children and youth in our community.

This year's Symposium, Rethinking Childhood Disability: Imagination, Innovation, **Inclusion** will undoubtedly lead to initiatives and research that will improve and benefit the lives of many children.

I wish you a successful Symposium and look forward to working with Holland Bloorview in the months and years to come.

Sincerely,

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

Don Valley West

Run B. Ourshart

House of Commons The Valour Building, Room 1200 Ottawa, Ontario K1A 0A6 Tel: 613-992-2855 Fax: 613-995-1635

Constituency 1670 Bayview Ave., Suite 310 Toronto, Ontario M4G 3C2 Tel: 416-467-7275 Fax: 416-467-8550

Chambre des Communes Édifice de la Bravoure, Pièce 1200 Ottawa, Ontario K1A 0A6 Tel: 613-992-2855 Fax: 613-995-1635

Circonscription 1670 Ave Bayview, Pièce 310 Toronto, Ontario M4G 3C2 Tel: 416-467-7275 Fax: 416-467-8550

Rob.Oliphant@parl.gc.ca www.roboliphant.ca





November 14th, 2022

A message from Stephanie Bowman, Member of Provincial Parliament for Don Valley West

17th annual Bloorview Research Institute Symposium

It is my pleasure to extend greetings to everyone attending the virtual 17th Bloorview Research Institute Symposium.

I am so impressed by this institution's ongoing support and care for children and young people with disabilities, and I am grateful to have had the opportunity to visit in person and learn more about its commitment to research to further create a world of possibility for children and youth with disabilities.

This year's theme, **Rethinking Childhood Disability: Imagination, Innovation, Inclusion,** focuses on the innovations and advancements being made by scientists in the field of childhood disabilities. These advancements are essential to building a more welcoming, inclusive, and understanding world for those living with disabilities.

Thank you for your important work and I wish you an educational and inspiring symposium together.

Warm regards,

Stephanie Bowman MPP, Don Valley West





Message from the Mayor

It is my pleasure to extend greetings and a warm welcome to everyone attending Holland Bloorview Kids Rehabilitation Hospital's 17th annual Bloorview Research Institute Symposium.

Best wishes to everyone participating in Canada's largest hospital-based pediatric disability health research conference themed, "Rethinking Childhood Disability: Imagination, Innovation, Inclusion". I am pleased that this virtual conference will showcase the many advancements and great innovations taking place in the field of childhood disability. Thank you to the Holland Bloorview Kids Rehabilitation Hospital for your contributions to the health and well-being of children, helping them to look forward to a brighter tomorrow.

The City is proud of organizations that are committed to making a difference. I thank everyone participating in this event for your contribution to the well-being of our communities.

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

Yours truly,

John Tory Mayor of Toronto

Holland Bloorview

Kids Rehabilitation Hospital

Welcome to the 17th annual Bloorview Research Institute symposium

As we welcome participants to our 17th annual Bloorview Research Institute (BRI) Symposium, I am deeply proud that the BRI continues to push the boundaries and elevate research to new heights through ground-breaking innovations, impactful scientific advancements, thoughtful leadership and crossdisciplinary collaborative partnerships.

Our scientists, researchers and trainees found ways to continue to engage with study participants and research family engagement leaders despite the impact of COVID-19. Aligned



with the Holland Bloorview vision of the most meaningful and healthy futures for all children, youth and families, these partnerships lead to new client- and family-focused interventions. Our trainees have also been supported by our scientists to propel the research institute's innovative work forward while adhering to safety precautions. This is how we are always finding ways to transform the childhood disability research landscape through our three key pillars: exploring human dimensions of care and disability, developing and improving interventions, and understanding developmental disability.

Our work with our Inclusion, Diversity, Equity and Accessibility (IDEA) Taskforce continues as part of the hospital's and research institute's unwavering and important commitment to anti-racist education and practice. As this pandemic laid bare the stark inequities that many people with disabilities and members of BIPOC communities face, we too must take up the mantle of ensuring no one is left behind when it comes to accessing health care and being equally represented in health research. The challenges of anti-racism, anti-oppression and anti-ableism have never been as important and urgent as now.

We are equally energized by the strategic planning process that is underway now to chart a bold course to shape the future of Canada's largest pediatric rehabilitation hospital so that we can unlock a world of possibilities for all families.

Lastly, the work on Holland Bloorview's largest research expansion in history continues and with its completion by the end of this year, we will make an even greater impact on the lives of children and youth with disabilities through research and innovation.

Thank you to the many hands that have made this day possible and thank you for participating and sharing your perspectives. I wish you a day full of inspiring discussions and learning.

Julia Hanigsberg President and CEO

Juha EHangsberg

BlcorviewRESEARCH INSTITUTE

Elevating Our Research to New Heights at Bloorview Research Institute

The 17th annual Bloorview Research Institute Symposium marks significant milestones at Holland Bloorview. In January 2023, we will welcome Dr. Evdokia Anagnostou as our new vice-president of research and director of the Bloorview Research Institute.

In addition, thanks to a \$32-million campaign entirely funded by our donors and community partners, we are in the final stages of completing the largest research expansion in Holland Bloorview's history. The elevated two-storey expansion on the north side of the hospital will serve to create more space for new discovery hubs, research teams and state-of-the-art research equipment. Once completed, it will unlock a world of new possibilities so we can impact more kids and families around the globe. But, as our research capacity continues to grow, we will always remain steadfast in our approach: that is to ground our questions and research studies firmly in client and family engagement. This means consulting with children, youth, parents and caregivers about how our research can best reflect their unique needs and personalize interventions to meet them.





As you will see from today's symposium, many of our speakers and research presentations will reflect on how their research has either been shaped by their lived experiences or driven by family engagement. Our morning panel will reimagine the future of childhood disability research through the perspective of both a current and former client as well as from a research perspective. **Dr. Jamie Borisoff**, who will deliver the symposium's highly anticipated Mickey Milner International Professorship keynote, will explore how imagination, innovation and inclusion can push the boundaries of design in adaptive mobility devices to create more autonomy for children, youth and adults living with disabilities.

All of the research that you will hear today – from research posters to our everpopular Quick Hits – showcases the impact of family-engaged research and our continued fierce pursuit to discover for action. We are very proud of the work we have achieved together and hope you take away from this day an enhanced perspective of inclusion, compassion and partnership.

Together, we are creating a world of limitless possibilities for kids with disabilities through scientific excellence.

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Virginia Wright

Virginia Wright Interim Vice President, Research Event Co-Host Jennifer Rose Family Leader Event Co-Host

Event agenda

9 to 9:15 a.m. Welcoming remarks

Virginia Wright, Interim Vice-President of Research and Director

of the Bloorview Research Institute

Dr. Trevor Young, Dean, Temerty Faculty of Medicine,

University of Toronto

Jennifer Rose, Family Leader and Holland Bloorview parent

9:15 to 10 a.m. Lived Experience Panel: Reimagining the Future of Childhood Disability Research

Dr. Kate Einarson, Knowledge Translation Specialist,

Holland Bloorview (moderator)

Zachary Rayment, current client and Holland Bloorview

ambassador

Dr. Maria Walker, Registered Practical Nurse, and former client,

Holland Bloorview

Dr. De-Lawrence Lamptey, Postdoctoral Fellow, York University

10 to 10:05 a.m. **Break**

10 to 10:30 a.m. **Quick Hits Research Presentations and Kahoots Quiz**

10:30 to 10:40 a.m. **SADA Sponsor Talk: Hands-on Application of**

Sky-High Technology: How Biometrics and Al

Combine to Improve Patient Outcomes

Presented by Michael Ames, Senior Director of Healthcare and

Life Sciences at SADA

10:45 to 11:30 a.m. Breakout Sessions

Reimagining the Possibilities of Inclusive Play Infrastructure and Programming

- Dolly Menna-Dack, Clinical Bioethicist and Youth Engagement Strategy Lead, Holland Bloorview (moderator)
- Dr. Tim Ross, Scientist, EPIC Lab, Holland Bloorview
- Dr. Kelly Arbour- Nicitopoulos, Associate Professor of Disability and Physical Activity with University of Toronto's Faculty of Kinesiology & Physical Education
- Jennifer Leo, Faculty of Kinesiology, Sport and Recreation The Steadward Centre, University of Alberta

Bootle Blast – On the Journey of Gamifying Therapy

- Sharon Wong, Director of Commercialization, Holland Bloorview (moderator)
- Dr. Elaine Biddiss, Senior Scientist, PEARL Lab, Holland Bloorview
- Gavin Brauer, CEO, Pearl Interactives
- Iveta Lewis, Manager, Health Sciences Library and Corporate Archives, Holland Bloorview
- Daniela Chan Viquez, research trainee, PEARL Lab, Holland Bloorview

11:30 to 12:30 p.m. Virtual Research Poster Session and Partnership
Showcase

12:30 to 1:15 p.m. **Keynote: Mickey Milner International Professorship**

Lecture

Autonomy through Research & Design: Imagination, Innovation and Inclusion

Presented by Dr. Jamie Borisoff, Director of British Columbia Institute of Technology's MAKE + Applied Research, and former Canada Research Chair in Rehabilitation Engineering Design

1:15 to 1:25 p.m. **Break**

1:25 to 1:35 p.m. **Sound.colLAB: A unique co-creation project that**

celebrates neurodiversity through music

Presented by Peter Welsh, Holland Bloorview Family Leader

1:35 to 2:00 p.m. Celebration of Dr. Tom Chau's term as VP,

Research and Director, Bloorview Research Institute

2 to 2:30 p.m. Awards Ceremony and Closing Remarks

#GrowHBResearch @HBKidsHospital



Transforming the

future of childhood

disability research



The Bloorview Research Institute (BRI) is internationally recognized for its world-leading applied and client and family-centered research, dedicated to improving the lives of children with disabilities locally and around the globe.

Guiding all of the work within the BRI are three themes that aim to advance our goal of understanding disability, improving the lives of children and youth living with disabilities.

These themes are:



Exploring human dimensions of care and disability

We study the pathways of lived experience of children and youth with disabilities, the social settings important to families, and the perspectives of those who care for them. We examine the origins of stigma and marginalization and shine light on why embracing disability is beneficial to society.



Developing and improving interventions

Working directly with people with lived experiences and their families, clinicians and community partners, we co-create and evaluate interventions – from medical to technological, from educational to vocational, and beyond. These interventions promote the health and wellness of children, youth and families living with disability across the globe.



Understanding developmental diversity

We investigate the interplay of factors contributing to human development and its diversity, from genes to environment. We explore brain and body interactions to understand and support individual trajectories. With this information, we evaluate existing clinical practices and discover novel avenues for supporting the well-being of individuals with disabilities, and their families.

To learn more about the Bloorview Research Institute, visit **research.hollandbloorview.ca** or email **brirequests@hollandbloorview.ca**

#GrowHBResearch

Re-imagining the Future of Childhood Disability Research

Researchers in Canada and worldwide seek to improve outcomes for kids and youth living with disabilities and to enable more meaningful and healthy futures for them and their families. Today, we explore what youth and adults living with disabilities believe is most important for childhood disability research, and ask them what they would like to see in the future. This panel of lived experience speakers brings together current and former clients at Holland Bloorview as well as a childhood disability research.

Panelists:

Dr. De-Lawrence Lamptey, postdoctoral fellow, York University

De-Lawrence is currently pursuing his post-doctoral studies in the intersectionality of ethnicity/race and childhood disability at York University after completing his post-doctoral fellowship at Holland Bloorview Kids Rehabilitation Hospital's Bloorview Research Institute. He is collaborating with various researchers/scientists to develop a resiliency-related measure for pediatric rehabilitation, study friendship among children and youth with

disabilities at Holland Bloorview, and pandemic impacts on children with complex care needs and their families in Atlantic Canada.

Zachary Rayment, teen and current Holland Bloorview client Zachary Rayment is a Grade 7 student and has been a client at Holland Bloorview since he was two years old. He has cerebral palsy quadriplegia, a medical condition that affects both his arms and legs. Over the years, he has been both an in-patient and out-patient, accessing many of the services the hospital offers. He knows all the shortcuts at the hospital and runs into his friends each time he comes. Zachary is also an ambassador for Holland Bloorview and shares his story with others so they

can understand how the hospital has helped him through the years. He loves science and is very excited about the hospital's research expansion. His goal? Perhaps to work at the Bloorview Research Institute one day!

Maria Walker, registered practical nurse, Holland Bloorview, and former Holland Bloorview client

Maria Walker is a registered practical nurse on the Brain Injury Rehab Team (BIRT) at Holland Bloorview. She has been a part of the Holland Bloorview family for the last 25 years – first as a former patient in the Specialized Orthopedic and Developmental Rehabilitation unit of the hospital and then as a student in the hospital's Complex Continuing Care unit. She now works as a full-time nurse helping children with disabilities.



Moderator:

Dr. Kate Einarson, knowledge translation specialist, Holland Bloorview's Bloorview Research Institute

Dr. Kate Einarson works as a Knowledge Translation (KT) Specialist in the Bloorview Research Institute, ensuring childhood disability research makes a difference for children, families, service providers, and across systems. She is a behavioural scientist by training, with a Ph.D. in child development research from McMaster University and a Knowledge Translation Certificate from University of Toronto.



An award-winning speaker and teacher, Kate is also a dog lover who can often be found exploring Toronto's parks and ravines.



Mickey Milner International Professorship Lecture

Autonomy through Research & Design: Imagination, Innovation, & Inclusion

Dr. Jamie Borisoff, Director of British Columbia Institute of Technology's MAKE + Applied Research, and former Canada Research Chair in Rehabilitation Engineering Design

This talk explores how autonomy - defined as having decisional and executional choice and control over one's life – can be enhanced amongst people who use wheelchairs as



their primary means of mobility at home and in the community. Specifically, Dr. Borisoff will explore how our research and technology design to improve autonomy for people living with disabilities in two domains: 1) manual wheelchair mobility, and 2) exercise and recreational outdoor pursuits. He will discuss how imagination, innovation, and inclusion have shaped these research and design efforts. How life experiences and imagining better ways to do things can lead to improved technology. How an innovation process that adapts what already works and is focused on usability can lead to practical solutions. And how striving for inclusion can lead to new devices that improve access to different types of environments and activities, which then serves to improve participation in community, quality of life, and autonomy of wheelchair users. Technologies highlighted will include manual wheelchairs with adjustable features and add-on components for off-road wheeling; hand cycles; wheelchair paddle boards; adapted rowing machines; and our simulated-walking cardio-exercise machine under development.

Biography

Dr. Jaimie Borisoff, PhD, is the director of BCIT's MAKE+ research group, an ISOcertified applied research and product development lab. He is also an adjunct professor at the University of British Columbia's Department of Occupational Science & Occupational Therapy, a principal investigator at International Collaboration on Repair Discoveries and the former Canada Research Chair in Rehabilitation Engineering Design. His research projects are focused on assistive technology development and rehabilitation engineering research. A major theme is the research and development of "dynamic" wheeled mobility devices that promote autonomy, enabling users to guickly change their seating and wheeling configurations on-the-fly to better suit different daily activities. Examples include the Elevation™ ultralight wheelchair, commercialized by PDG Mobility; and the Swivl™ "stow & roll front wheel" which can instantly change a highly maneuverable daily-use wheelchair into a capable off-road device. Another research theme focuses on adapted exercise – designing easy-to-use devices that enable greater exercise options for people with disabilities. These devices include our adapted rowing machine (aROW), and the AAPLEwalk – which combines the benefits of Active-Arm Passive-Leg Exercise (AAPLE), cardio-respiratory fitness training, and standing locomotor therapy in a single independent-use device.

Breakout Sessions

Re-Imagining the Possibilities of Inclusive Play Infrastructure and Programming



This breakout session presents a panel discussion with three authors of the recently released report titled, "Creating Inclusive Playgrounds: A Playbook of Considerations and Strategies" (hollandbloorview.ca/playgroundsplaybook). This report offers comprehensive guidance to municipalities and community groups for creating inclusive playgrounds that account for the presence and diversity and disability. The report is structured around four questions: (1) How do we start? (2) Can I get there? (3) Can I play? And, (4) Can I stay? The panel discussion features a range of topics about the future of inclusive play infrastructure and programming in our communities. Topics may include, but are not limited to, the design of playgrounds and their surrounding environments, how we can leverage inclusive play infrastructure via play (and other) programming options, challenges associated with navigating ableist expectations around who does and does not get to enjoy play, as well as where and how we can create new inclusive play opportunities (e.g., going beyond the boundaries of playgrounds).

Panelists:

Dr. Kelly Arbour-Nicitopoulos, associate professor of disability and physical activity, University of Toronto's Faculty of Kinesiology & Physical Education

Kelly Arbour-Nicitopoulos leads the ADAPT Lab, which focuses on developing and testing theory-based physical activity interventions that reach individuals from marginalized groups, with a particular focus on persons living with disabilities. Kelly is also an adjunct scientist at the Bloorview Research Institute, former co-director of knowledge



translation for the Active Living Alliance for Canadians with a Disability, and a coinvestigator for the Canadian Disability Participation Project, an alliance of university. public, private and government sector partners working together to enhance community participation among Canadians with disabilities.

Dr. Jennifer Leo, director of the University of Alberta's The Steadward Centre for Personal & Physical Achievement Dr. Jennifer Leo is the director of The Steadward Centre for Personal & Physical Achievement, a teaching and research centre within the Faculty of Kinesiology, Sport and Recreation at the University of Alberta in Edmonton, Canada. The Steadward Centre is a leader in adapted physical activity and para-sport development and, on an annual basis, serves more than 1.000 children and trains more than 250 students.



Jennifer is also the former co-director of knowledge translation for the Active Living Alliance for Canadians with a Disability, a member of the leadership team for the Inclusive Sport and Recreation Collective in Alberta, and a collaborator with the Canadian Disability Participation Project.

Dr. Tim Ross, scientist at Holland Bloorview's Bloorview Research Institute

Dr Tim Ross is a scientist at Holland Bloorview's Bloorview Research Institute and leads the EPIC Lab (Engagement and Planning for Inclusive Communities Lab), which conducts research focused on understanding experiences of childhood disability and advancing more inclusive communities. He is also a registered professional planner and an assistant professor (status) within the Department of Geography and Planning and



the Rehabilitation Sciences Institute at the University of Toronto, Canada.

Moderator:

Dolly Menna-Dack, clinical bioethicist and youth engagement strategy lead, Holland Bloorview

Dolly is the Clinical Bioethicist and the Youth Engagement Strategy Lead at Holland Bloorview Kids Rehabilitation Hospital.

She is particularly interested in pediatric rehabilitation issues that arise in both clinical care and research with children and youth with chronic illnesses and disabilities. She has over fifteen vears of experience on pediatric research ethics boards, both at acute and rehabilitation hospitals.



Dolly is a nationally and internationally sought-after leader in Lived Experience roles and has been the Youth Engagement Strategy Lead at Holland Bloorview since its inception in 2012. Dolly has extensive experience training and supporting youth and young adults in advocacy and partnering in the areas of service & care delivery, teaching & education of healthcare providers, clients & families, as well as research and policy.

Bootle Blast – On the Journey of Gamifying Therapy



This panel discussion gives audiences a peak into the various stages of developing and bringing a new innovation to the public. In this case, the innovation is a mixed reality game called Bootle Blast that was developed to help kids practice their physiotherapy. You'll get to hear from dedicated leaders about their role and challenges in making Bootle Blast available to the people who could benefit from it.

Panelists:

Dr. Elaine Biddiss, Senior Scientist, Holland Bloorview's Bloorview Research Institute

Dr. Elaine Biddiss is a senior scientist and head of the PEARL (Possibility Engineering and Research Lab) Lab at Holland Bloorview's Bloorview Research Institute. Dr. Biddiss and her team design innovative technologies that create possibilities for young people with disability to participate fully in arts, music, physical activities and therapies. One of these technologies is Bootle Blast, a mixed-reality video game that helps kids with disabilities to reach their rehabilitation therapy goals while having fun.

Gavin Brauer, co-founder and CEO, Pearl Interactives Gavin Brauer is the co-founder and CEO of Pearl Interactives, a start-up housed within Holland Bloorview Kids Rehabilitation Hospital's Bloorview Research Institute that develops accessible video games and apps to be used in home, research or clinical settings. The games and apps are co-designed by Dr. Elaine Biddiss and her PEARL Lab research team in partnership with families, clinicians and game developers. The neurotech



company was one of seven new ventures that recently won the NERVE prize, Canada's single largest award for early-stage neurotechnology ventures awarded by the Ontario Brain Institute.

Iveta Lewis, Manager, Health Sciences Library and Corporate Archives, Holland Bloorview

Iveta Lewis is a library and archives manager at Holland Bloorview. She started here in the thick of the pandemic in 2020. She is very familiar with the health sciences context from the Department of Family and Community Medicine at the University of Toronto, and as a solo librarian at North York General Hospital. One of her most gratifying projects was setting up a children's library for the 519 Community Centre. At Holland Bloorview, her mission is to integrate and promote



the library's services to all departments and programs. She is very passionate about constructing literature searches and thinks of herself as a detective when she finds what a patron is looking for.

Daniela Chan Viquez, research trainee, Holland Bloorview's Bloorview Research Institute

Daniela Chan Viquez is a PhD candidate at the Bloorview Research Institute's PEARL Lab. A physical therapist by training, Daniela began her doctoral studies at the University of Toronto in the fall of 2018 under the direction of Dr. Elaine Biddiss. Her research project explores how interactive computer play technologies, like video games, can be applied for rehabilitation at home for children living with cerebral palsy, a group of disorders that affect a person's mobility, balance and posture, and the most common motor disability in childhood.



Moderator:

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 healthy 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.



Hands-on Application of Sky-High Technology: How Biometrics and AI Combine to Improve Patient Outcomes

Presented by: Michael Ames, Senior Director of Healthcare and Life Sciences

Advances in real-time biometric monitoring and machine learning-based predictive models are enabling care providers to diagnose disease and detect critical problems in ways that are more timely for doctors and convenient for patients, resulting in improved health outcomes. In this session, Michael Ames will share some of the remarkable breakthroughs in AI technology that make this possible, and examples of innovative companies and products putting those breakthroughs to work.

About Michael Ames

Michael is the Senior Director of Healthcare and Life Sciences at SADA. Prior to joining SADA, Michael led technology and innovation strategy for the Colorado Center for Personalized Medicine, where his team launched a massive, multiinstitutional, enterprise health data warehouse on the Google Cloud Platform—the first of its kind on any public cloud. Michael has spent over 20 years building systems and teams that manage and analyze healthcare data. He holds degrees in Business and Biomedical Informatics and has been a leader in tiny start-ups, major multinationals, and academia.



Celebrating Neurodiversity through Musical Composition: sound.colLAB

What do Siri, a forklift, a dragon, a cat, a computer keyboard, and a toy xylophone have in common? Each one was the inspiration for an original piece of music!

The result of a two-year partnership between Xenia Concerts and National accessArts Centre, sound.colLAB celebrates the creative voices of seven participants whom all identify as neurodivergent or having a disability. With the support of composer Bekah Simms, the Rolston String Quartet, and NaAC and Xenia Concerts team members, each participant wrote an original piece of music for a string quartet and electronics.

Through sound.colLAB, participants explored their musical voices without necessarily having formal musical training. Each composition is inspired by a "sound offering," a sound that the participants chose as being significant in their lives.

During the workshops, a team of professional musicians introduced participants to the sounds of the string quartet, then experimented with electronic sound manipulation and combining recorded sounds with live string instruments. By the end of the six-month process, each participant created a "text score," a written description of what they wanted their finished piece to sound like. All of the creative ideas came from the participants—the supporting musicians just helped them find the right words to describe what they wanted to hear, and then translated those words into sheet music.

The world premiere of Seven Miniatures took place at Meridian Hall in July 2022, and the Western Canadian premiere happened in Calgary in August. Future performances are being planned throughout North America in 2023-2024, and the sound.colLAB documentary Wild Sounds is now in production.

Peter Welsh, Family Leader (moderator)

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 the Commercialization Advisory Council. He has been married for more than 20 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 Peters, who can benefit from these new discoveries, therapies and treatments. In his spare time, he is involved in the Soundcol.Lab collaboration to help share their beautiful music with audiences worldwide and hosts a weekly virtual call for Autism dads attended by fathers from all over North America with some occasional international visitors.

Nathan Neutel, composer

Nathan Neutel lives in Toronto. He was in the Toronto Beaches Children's Choir and has sung in Carnegie Hall with them. He starred in the short film Oxford (directed by Lauren Belanger, written and produced by Ryan Nesbitt, and can be found on Vimeo), for which he was nominated for a Joey Award. He had a small role in the movie Pixels starring Adam Sandler. He has released the electronic music pieces "Today's The Day" and "Through the Mountains" under the name Gentle Dragon, which can be found in online music stores and streaming services.



Rory McLeod, Executive and Artistic Director of Xenia Concerts

Rory McLeod is a musician, entrepreneur, and concert designer who takes joy in creating authentic human connections through shared musical experiences. As Executive and Artistic Director of Xenia Concerts, he works with health experts, community members, presenting partners, and performing artists to co-create concert experiences for people in the neurodiversity and disability communities who face systemic and social barriers to inclusion. Rory is also the founder, Co-



director, and violist of Pocket Concerts, an organization that presents intimate concert experiences in alternative venues. He is currently pursuing his Master's in Inclusive Design at OCAD University.

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 Virtual 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!

The Showcase will be held virtually during the lunch break from 11:30 a.m. to 12:30 p.m.

Featured exhibitors:

SADA

SADA is an award-winning leading global provider of business and technology services, empowering people to transform their work, organizations, and the world



to transform their work, organizations, and the world. SADA teams have helped enterprise clients in healthcare, media, entertainment, retail, manufacturing, and the public sector achieve their boldest ambitions and solve their most complex problems. A Google Cloud Partner with multiple Specializations, SADA delivers continuous innovation, strong partnerships, and service excellence.

Learn more at www.sada.com

Ontario Brain Institute

The Ontario Brain Institute (OBI) is a not-forprofit organization that accelerates discovery and innovation, benefiting both patients and the



economy. Our collaborative 'team science' approach promotes brain research, commercialization, and care by connecting researchers, clinicians, industry, patients, and their advocates to improve the lives of those living with brain disorders. Funding is provided, in part by, the Government of Ontario.

Learn more at braininstitute.ca.

Disability and Sexuality Resource Hub

Developed by Dr. Amy McPherson, a senior scientist at the Bloorview Research Institute, and Christine Provvidenza, knowledge translation lead and clinical team investigator at Holland Bloorview, the Disability and Sexuality Resource Hub is a free online



resource where youth living with disabilities, parents, educators, healthcare providers and other groups can find conversation guides, impact videos, research publications and more on youth sexuality and disability.

Learn more: https://hollandbloorview.ca/disability-sexuality-resource-hub

Hummingbird

Created at the Bloorview Research Institute, the Hummingbird is a wearable vocal cord vibration switch that converts vocal cord vibrations into binary control signals for augmentative and alternative communication (AAC), environmental control, and computer access. This novel device is well suited for individuals who have severe physical disabilities and who are non-verbal.

The Hummingbird is now available for pre-sale! To assist in raising the capital needed to manufacture 300 units of the Hummingbird, we have launched an IndieGoGo crowdfunding site for pre-sales of



the Hummingbird. This will enable us to produce the units for interested families and clinicians for product delivery once the capital is raised.

Learn more or pre-order your unit: https://myhummingbird.ca.

Quillsoft

Founded by Dr. Fraser Shein in 2000 in partnership with Holland Bloorview Kids Rehabilitation Hospital, Quillsoft has been an industry leader in the development of state-of-the-art assistive technologies for the past 20 years. Created with close attention to the principles of



accessible and universal design, these technologies have supported millions of disabled and neurodiverse students and adults around the world.

Learn more: www.quillsoft.ca

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 family leaders, scientists and staff chose the top five students 'quick hit'-style research presentations from over 22 submissions. These students will present their compelling research in three minutes as a research pitch. Audience members, pay attention! You'll have a chance to test your memory with a fun pop quiz!

1. Research on the sexuality of youth with physical disabilities focuses on sexual abuse - but misses so much more!

Presenter: Madison Giles

Authors: Madison Giles and Drs. Clara Juando-Prats, Amy McPherson, and

Dionne Gesink

2. CyKey: See-through, Gaze-optimized Text Entry in augmented reality head-mounted display as an Alternative and Augmentative **Communication System**

Presenter: Mahya Mirbagheri

Authors: Mahya Mirbagheri, Tom Chau

3. The feasibility of transcranial direct current stimulation as an adjunct to inpatient physiotherapy for children and youth with acquired brain injury

Presenter: Jennifer Ryan

Authors: Jennifer Ryan, Virginia Wright, Darcy Fehlings, Danielle Levac, Deryk Beal

4. Evaluating the reliability of a shape-capturing process for transradial residual limb using a non-contact scanner

Presenter: Calvin Ngan

Authors: Calvin Ngan, Harry Sivasambu, Sandra Ramdial, Jan Andrysek

5. Exploring the extent and nature of disordered eating in adolescents and young adults with spina bifida and hydrocephalus: An interim analysis

Presenter: Revi Bonder

Authors: Revi Bonder, Shauna Beaudoin, Paige Church, Marie Hooper, Melissa Thorne, Alene Toulany, Amy C. McPherson

At the Bloorview Research Institute, scientists, researchers and trainees are co-creating innovative research with clients and families to unlock a world of possibilities and create healthier and meaningful futures for families.

Here are this year's research poster presentations featured during the symposium from 11:30 a.m. to 12:30 p.m. Please stop by and have a chat with our presenters to learn more about their incredible research.

More than just double discrimination:
 A scoping review of the experiences and impact of ableism and racism in employment

Presenter: Kristina Fuentes

Authors: Kristina Fuentes, Shaelynn Hsu,

Stuti Patel, Sally Lindsay

2. Exploring the Feasibility of Move&Connect: Experiences of Youth with Prolonged Post-Concussion Symptoms and their Caregivers with a Virtual Group-based Interdisciplinary Intervention

Presenter: Hiba Al-Hakeem Authors: Hiba Al-Hakeem, Andrea Hickling, Tess Bardikoff, Brendan Lam, Danielle Duplessis, Kylie Mallory, Christine Provvidenza, Andrew Lovell, Carlin Miller, Shannon Scratch

 Getting the Prosthetic Upper Limb Functional Index (PUFI-2) into clinical use: examining international clinicians' experiences using the new web-based version of the measure.

Presenter: Lisa Artero

Authors: Maria Falcon Obregon, Marlie Clark, Virginia Wright, Sandra Ramdial,

Ilana Naiman, Lisa Artero

 Piloting a Sustainable Parent-Mediated Intervention for Toddlers with Autism Spectrum Disorder in Goa, India: Partnership, Training Model and Initial Outcomes.

Presenter: Kate Bernardi

Authors: JA Brian, E Dowds, K Bernardi, A Velho, M Kantawalla, N deSouza.

Exploring the extent and nature of disordered eating in adolescents and young adults with spina bifida and hydrocephalus: An interim analysis

Presenter: Revi Bonder

Authors: Revi Bonder, Shauna Beaudoin, Paige Church, Marie Hooper, Melissa Thorne, Alene Toulany, Amy McPherson

 Active Ingredients of a Parent-Mediated Intervention for Toddlers with Emerging Autism Spectrum Disorder or Related Social Communication Challenges

Presenter: Jessica Brian Authors: Jessica Brian, Erin Dowds, Kate Bernardi, Ian Roth, Sara Daoud, Sanne Jilderda, Stacey MacWilliam, Abbie Solish, Isabel Smith, Lonnie Zwaigenbaum, Susan Bryson

 Clinician Perspectives on the Acceptability of Pediatric Autism Therapies: A Mixed Methods Study

Presenter: Isabelle Caven

Authors: Isabelle Caven, Melanie Penner

8. Experiences of and perspectives on bullying in youth with Myopathies

Presenter: Nurin Chatur

Authors: Nurin Chatur, Christina Ippolito,

Laura McAdam

9. A descriptive case series of the infant Social ABCs parent-mediated intervention for babies with emerging signs of autism spectrum disorder or related social communication challenges

Presenter: Erin Dowds Authors: Frin Dowds, Lonnie

Zwaigenbaum, Isabel Smith, Jessica Brian

10. Multi-Domain Assessment of Concussion Recovery: A Scoping Review

Presenter: Danielle DuPlessis

Authors: Danielle DuPlessis, Emily Lam, Lucy Xie, Nick Reed, Virginia Wright, Elaine Biddiss, Shannon Scratch

11. Self-Report Measures of Engagement for Children and Youth: An Integrative Review

Presenter: Kate Finarson

Authors: Kathleen Einarson, Yasmin Elliott, Gillian King, Lisa Chiarello, Matthew McLarnon

12. Development and Evaluation of Rhythmic Stimulation Based Biofeedback Systems for Lower-Limb **Amputee Gait Training**

Presenter: Aliaa Gouda

Authors: Aliaa Gouda, Dr. Jan Andrysek

13. The Brain during Movement **Execution and Movement Observation** in Children

Presenter: Nilou Hashemi

Authors: Nilou Hashemi, Deryk Beal,

Trina Mitchell, Tom Chau

14. Discovering autistic youth and young adults' experiences of workplace disclosure

Presenter: Shaelynn Hsu

Authors: Shaelynn Hsu, Vanessa Tomas,

Sally Lindsay

15. Bullying experiences of youth with Myopathiesor Spinal Muscular Atrophy and their well-being: A survey study

Presenter: Christine Ippolito

Authors: Christina Ippolito, Emilie Hill-Smith, Marco Dequise, Hanns Lochmuller, Hugh McMillan, Laura McAdam

16. Mindset – A Practical and Affordable **General-Purpose BCI Access Solution**

Presenter: Jason Leung

Authors: Jason Leung, Masuma Akter,

Tom Chau

17. The impact of climate-change related extreme weather events on people with pre-existing disabilities and chronic conditions: A scoping review

Presenter: Sally Lindsay, John Lindsay Authors: Sally Lindsay, Shaelynn Hsu, Sharmigaa Ragunathan, John Lindsay

18. Ableism within health care

professions: A systematic review of the experiences and impact of discrimination against health care providers with disabilities Presenter: Sharmigaa Ragunathan, Luiza Lamaj, Jaclyn Dyson Authors: Sally Lindsay, Kristina Fuentes, Sharmigaa Ragunathan, Luiza Lamaj, Jaclyn Dyson

19. Ableism and workplace discrimination among youth and young adults with disabilities: A systematic review

Presenter: Sally Lindsay, Kristina Fuentes,

Shaelynn Hsu

Authors: Sally Lindsay, Kristina Fuentes, Vanessa Tomas, Shaelynn Hsu

20. Predictors of Depression in Autism-A Longitudinal Study using Data from the Province of Ontario **Neurodevelopmental Disorders** (POND) Network

Presenter: Avery Longmore Authors: Avery Longmore, Danielle Baribeau and the POND Network Investigators

21. Evaluating Project ECHO Autism's Effectiveness: A Content Analysis of Community Physicians' responses on the uptake of recommendations

Presenter: Rayan Magon

Authors: Rayan Magon, Lisa Kanigsberg,

Melanie Penner

22. CyKey: See-through, Gaze-optimized Text Entry in augmented reality head mounted display as an Alternative and Augmentative **Communication System**

Presenter: Mahya Mirbagheri Authors: Mahya Mirbagheri, Tom Chau

23. Neural mechanisms driving speech and language recovery following childhood stroke: A scoping review.

Presenter: Christine Muscat Authors: Christine Muscat, Sarah McCabe, Iveta Lewis, Angela Morgan, Deryk Beal

24. Personalized Enjoyment Questionnaire (PEQ): Exploration of the usability of a new self-report tool for children with ASD in relation to motor skill performance

Presenter: Ilana Naiman Authors: Ilana D. Naiman, Jessica Brian, Kelly P. Arbour-Nicitopoulos, Virginia Wright

25. Evaluating the reliability of a shape capturing process for transradial residual limb using a non-contact scanner

Presenter: Calvin Ngan Authors: Calvin Ngan, Harry Sivasambu, Sandra Ramdial, Jan Andrysek

26. Co-creation of a Transition Resource for Youth, Families, and Partners for the Transition to Adult Life

Presenter: Laura Bowman, Anna Oh Authors: Laura Bowman, Dolly-Menna Dack, C.J. Curran, Laura Thompson, Jean Hammond, Jan Magee, Ivona Novak, Anna Oh

27. Personal Growth in Youth with Disabilities: The role of residential immersive life skills programs Presenter: Diana Tajik-Parvinchi Authors: Diana Tajik-Parvinchi, Kate Einarson, Amy C. McPherson, Shauna Kingsnorth, Jan Willem Gorter, Gillian King

28. Strategies for Increasing Diversity of Representation in Autism Research: A Rapid Review

Presenter: Tithi Paul

Authors: Tithi Paul, Paige France,

Azadeh Kushki

29. Social participation program principles: Synthesizing evidence regarding programs and services for voung people with disabilities

Presenter: Madhu Pinto Authors: Gillian King, Eric Smart, Laura

Bowman, Madhu Pinto

30. Moving to the beat: Examining the role of auditory perception in motor coordination abilities among children using a multimodal neuroimaging approach

Presenter: Marija Pranjić

Authors: Marija Pranjić, Michael Thaut

Tom Chau

31. Design of a diagnostic forearm for transradial prosthesis

> Presenter: Sabine Sanchez, Calvin C Ngan Authors: Sabine Sanchez, Calvin Ngan, Harry Sivasambu, Elaine Ouellette,

Neil Ready, Jan Andrysek

32. Program Options for Accessible Playgrounds in Education and **Pediatric Health Care Settings**

Presenter: Shalaine Sedres

Authors: Shalaine Sedres, Zehra Kamani,

Dr. Tim Ross

33. Exploring Solution-Focused Coaching Conversations to Develop Clinician's **Listening and Communication Skills**

Presenter: Michelle Servais

Authors: Michelle Servais, Gillian King, Patricia Baldwin, Sheila Moodie

34. Depressive Symptoms in Individuals with Persistent Post-Concussion Symptoms: A Systematic Literature Review and Meta-Analysis

Presenter: Elena Sheldrake

Authors: Lambert, M., Sheldrake, E., Deneault, A-A., Scratch, S. E.

35. R2Play Development: Fostering User-Driven Technology that Supports Return-to-Play Decision-Making **Following Pediatric Concussion**

Presenter: Josh Shore

Authors: Josh Shore, Danielle DuPlessis, Emily Lama, Fanny Hotze, Ajmal Khan, Stephanie McFarland, Andrea Hickling, Michael Hutchinson, F. Virginia Wright, Nick Reed, Elaine Biddiss, Shannon

Scratch

36. Strengthening friendships and sense of belonging for young persons with disabilities: A holistic framework

Presenter: Fric Smart

Authors: Eric Smart, Anna Oh, De-Lawrence Lamptey, Alana Armas, Alex Neff, Steph DeMartino, Melissa Thorne, Heather Keating, Mikayla Hjorngaard, Holly Yip, Gillian King

37. Investigating predictors of participation from pre-school to school age in children with cerebral palsy

Presenter: Daniela Testani

Authors: Daniela Testani, Heather Shearer,

Flora Wan, Darcy Fehlings

38. Co-design and usability testing of a disability disclosure decision aid tool for Canadian autistic youth and voung adults

Presenter: Vanessa Tomas, Cameron Lau Authors: Vanessa Tomas, Shaelynn Hsu, Shauna Kingsnorth, Evdokia Anagnostou, Bonnie Kirsh, Sally Lindsay

39. Experiences of Paediatric Healthcare **Built Environments among Children** with Disabilities and their Families: A Scoping Review

Presenter: Clarissa Yu

Authors: Clarissa Yu, Emi Wong, Juliana Gignac, Meaghan Walker, Tim Ross

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 development 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 is Holland Bloorview's Evidence to Care Team (EtC). Established in 2011. EtC is an active knowledge translation hub at the hospital. Its aims are to share evidence to increase knowledge and awareness of research and clinical best practices to those who would benefit from it, and tackle barriers standing in the way of delivering evidenceinformed high-quality client- and family-centred care.

The team has created a broad portfolio of projects dedicated to improving the lives of countless children with cerebral palsy and other developmental disabilities, in close collaboration with children, youth and families living with



a range of disabilities, as well as with clinicians and researchers. Their digital evidence-based best practices and tailored knowledge translation products for health professionals have been accessed globally, and are informing work across a large number of health systems. A full list of evidence-based resources created and/or supported by EtC can be found here.

Congratulations to our Evidence to Care team!

New VP of Research

Dr. Evdokia Anagnostou, senior scientist and child neurologist, has been appointed vice president, research and director of the Bloorview Research Institute – the first



woman to assume executive oversight of research at Canada's largest pediatric rehabilitation hospital in its 124-year history.

Dr. Evdokia holds a Canada Research Chair (Tier 2) in Translational Therapeutics in Autism Spectrum Disorder and the Dr. Stuart D. Sims. Chair in Autism. She is also the recipient of the Ontario Brain Institute's inaugural Donald T. Stuss Award for Research Leadership, designed to pay tribute to OBI's founding scientific director's qualities of extraordinary leadership while expanding understanding of brain function, injury and rehabilitation.

Notable awards

Bloorview Childrens Hospital Foundation Chair in Paediatric Rehabilitation

Holland Bloorview is pleased to announce that **Dr. Elaine Biddiss** has been named as the Bloorview Childrens Hospital Foundation Chair in Pediatric Rehabilitation, a



Hospital-University endowed Named Chair. As a senior scientist and the head of BRI's PEARL Lab (Possibility Engineering And Research Lab), Dr. Biddiss and her research team conceptualizes, develops and evaluates innovative technologies that create possibilities for young people to participate more meaningfully in arts, music, physical activities and therapies.

Established in 2006, this chair, held previously by <u>Dr. Virginia Wright</u>, is one of six university-hospital-endowed research chairs that the Bloorview Research Institute holds in partnership with the University of Toronto.

BRI Promotion

Congratulations to **Dr. Jessica Brian** for being promoted to senior clinician scientist. Since joining the Bloorview Research Institute, Dr. Brian has demonstrated her



commitment to championing a bright future for clients living with autism and their families through research and scientific discovery. One of Dr. Brian's many achievements is the co-development of the highly successful. Social ABCs, a parentmediated intervention for toddlers with ASD or related social communication challenges. Congratulations Dr. Brian!

Academic Promotions

Congratulations to **Dr. Sharon Smile**, a clinical study investigator and developmental pediatrician at Holland Bloorview. She has received a well-deserved



promotion to Associate Professor within the Department of Pediatrics at the University of Toronto's Temerty Faculty of Medicine. Congratulations Dr. Smile!

Congratulations to

Dr. Deryk Beal, a
clinician scientist
and chair of the
Research Ethics
Board at Holland
Bloorview. He has
received a welldeserved promotion



to Associate Professor within the Department of Pediatrics at the University of Toronto's Department of Speech Language Pathology. Congratulations Dr. Beal!

Notable awards

Graduate student awards

The BRI congratulates the 2022-2023 Graduate Student Scholarship Award recipients:

The Kimel Family Graduate
Student Scholarship in Pediatric
Rehabilitation winner is:

Marija Pranjić, Fourth-year PhD student in Music and Health Sciences – Collaborative Program in Neuroscience, University of Toronto

Project (under the supervision of Dr. Tom Chau): Moving to the beat: Investigating the role of auditory and motor timing in synchronization abilities among children with and without developmental coordination disorder

Kimel Family Graduate Student Scholarship in Paediatric Rehabilitation (Imaging)

Stefanie Bradley, second-year PhD student in Biomedical Engineering, University of Toronto

Project (under the 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.

The Kimel Family Graduate
Student Scholarships in Pediatric
Disability Research winners are:

Erica Floreani, first-year PhD in Biomedical Engineering at the University of Toronto

Project (under the supervision of Dr. Tom Chau): Optimization of Brain-Controlled Power Mobility Access for Children with Severe Physical Disabilities **Nilou Hashemi**, fifth-year PhD student in Biomedical Engineering, University of Toronto

Project (under the supervision of Dr. Tom Chau): The Brain during movement Execution and Movement Observation in Children

The Whipper Watson Graduate Research Scholarship winner is:

Erin Dowds, third-year EdD student in child study and education at Ontario Institute for Studies in Education (OISE), University of Toronto

Project (under supervision of Dr. Jessica Brian): A Mixed Methods exploration of Barriers and Facilitators to Access, Participation and outcomes for families participating in the social ABCs

BRI Trainee Awards for Excellence

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

Excellence in Trainee Supervision awarded to **Dr. Shannon Scratch**

Excellence in Trainee Support awarded to Ka Lun Tam

Excellence in Peer Mentorship awarded to **Nilou Hashemi**

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
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- National Centres of Excellence
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- Oculus
- Ontario Brain Institute
- Ontario Centres for Excellence
- OSSUR Inc.
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- Public Health Agency of Canada
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- 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

Bloorview Research Institute expansion almost completed

Three years since the Grow Holland Bloorview Research Institute \$32-million campaign launched, the Holland Bloorview Kids Rehabilitation Hospital (Holland Bloorview) is on track to completing the largest research expansion in history by the end of 2022

Thanks to the generosity of our donors, the teams at the Bloorview Research Institute -- embedded within Holland Bloorview -- can continue to make transformational discoveries in childhood disability research, including developing and evaluating innovative interventions, understanding developmental diversity and exploring dimensions of disability and care.





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

Thank you to all of the incredible donors who are helping to grow BRI research, including transformational gifts from:

\$5,000,000 - \$14,999,999

Jason Smith Heather Smith FDC Foundation

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Wesley Roitman and Lisa Nemiroff

Lawyers for Possibility

To learn more and to donate visit: www.growhbresearch.ca



Bloorview Research Institute

Unlocking the potential of the Bloorview Research Institute (2018-2022)

Holland Bloorview Kids Rehabilitation Hospital (Holland Bloorview)'s scientists are world-renowned leaders in childhood disability research. Thanks to a bold campaign to grow the Bloorview Research Institute (BRI), we will continue to make transformational discoveries that will have a global impact in the lives of children and families across the world.

The growth includes expanding the infrastructure and research capacity of Holland Bloorview's research institute, bringing new and state of- the-art equipment including Canada's first, fully-accessible, customizable, immersive, child-friendly research MRI, and catalyzing researchers from across the world. It marks the largest research expansion in the hospital's history.





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 or connect on Twitter, Facebook, Instagram, LinkedIn and parent-blog BLOOM.

Holland Bloorview

Kids Rehabilitation Hospital

150 Kilgour Road, Toronto, ON M4G 1R8 T: 416-425-6220 Toll-Free: 800-363-2440 F: 416-425-6591 hollandbloorview.ca