



2018 Annual Report



Today's research is tomorrow's cure.

MESSAGE FROM THE CEO & BOARD CHAIR



Dr. Terry Klassen
Board Chair and CEO,
Children's Hospital Research
Institute of Manitoba



Dave Evans
Board Chair, Children's Hospital
Research Institute of Manitoba

Another year has come and gone and we're pleased to come together to celebrate the successes and achievements of the Children's Hospital Research Institute of Manitoba (CHRIM) at the 2019 Annual General Meeting.


Looking back at this past year, we are amazed by how much was accomplished through the hard work and dedication of our volunteers and research participants, support staff, and of course our incredible researchers and their teams.

One of our focuses in 2018 was to elevate the CHRIM brand, and we're happy to share that we have seen tremendous growth in our public awareness and brand recognition as a result of several new initiatives brought forward this year. The creation of a new brand video helped to highlight the importance of research and the standard of excellence here at the Institute. The video is housed on our newly designed website that launched in January, which is more user friendly, and provides easy access to media releases, an interactive events calendar, and consistent, up-to-date researcher profiles.

In addition to the website, we have seen continual growth in our social media followings, giving us the ability to connect with more researchers, partners, and the general public in real time, anywhere across the globe. The growth of our social media led to a new video blog (VLOG) series entitled "Through the Microscope" to further engage our online audience and grow the CHRIM network. Internally, we updated the weekly newsletter and have been able to connect with our community by providing consistent updates on upcoming events, awards and recognition, and media appearances.

Increasing our online presence has helped boost media exposure, with 25 researchers making media appearances last year, and 36 CHRIM publications hitting the news locally, nationally, and even globally in some cases. This increased exposure allows us to share and be seen for all of our achievements and special moments, and 2018 was full of them.

We were very proud to see Dr. Cheryl Rockman-Greenberg officially inducted into the Canadian Medical Hall of Fame in the category of Leadership in Health Promotion, Illness Prevention, and Care. Dr. Rockman-Greenberg has been a part of the CHRIM family for



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many years and has contributed tremendously to research here in Manitoba and around the world. Her research on the treatment of hypophosphatasia (HPP – an often fatal bone disease that results from a missing enzyme) has attracted international attention. She is currently the Canadian leader in this field, and her contributions to research and medical care of patients is truly exceptional.

We were also delighted to see Dr. Jean-Eric Ghia appointed to honorary consul of France in Manitoba – a role in which he works to strengthen research and university exchanges between France and Manitoba, and two of our researchers – Dr. Meghan Azad and Dr. Roberta Woodgate – received Canada Research Chairs in the categories of Developmental Origins of Chronic Disease, and Child and Family Engagement in Health Research and Healthcare, respectively.

Several of our researchers also achieved scientific breakthroughs this year, including Dr. Neeloffer Mookherjee's discovery that diesel exhaust changes immune response in human lungs, and Dr. Elinor Simons' study on the link between low neighbourhood walkability and childhood asthma. Congratulations to these scientists and their teams!

2018 was a great year for CHRIM trainees – our DREAM trainee group hosted the first-ever DREAM Trainees Lectureship featuring Dr. Dale Abel from the University of Iowa, and two of our trainees received massive awards! Taylor Morriseau was awarded a Vanier Canada Graduate Scholarship for her work investigating how a traditional Oji-Cree diet can affect diabetes rates, and Dr. Chris Pascoe received a Banting Postdoctoral Fellowship for his research project "Understanding the association between artificial sweetener consumption during pregnancy and the increased risk of asthma in offspring."

Many of our accomplishments last year extend into our community outreach as well. The Child Health Research Days public forum featuring Dr. Michael Skinner was a sold-out success with more than 200 guests and many more on the wait list.

As well, we collaborated with Mayor Brian Bowman's office to host the first ever flag raising event for congenital diaphragmatic hernia awareness with Dr. Richard Keijzer at City Hall. Students from St. John's Ravenscourt School also visited CHRIM for a tour and to learn about heart health and the importance of staying active with Dr. Jon McGavock's team for February Healthy Heart Month.

The research we do on a daily basis will have an impact on the lives of children in Manitoba and beyond for years to come. This is only possible because of the tireless effort of our researchers, their staff and students, CHRIM support staff, research participants, volunteers, and donors. We are incredibly grateful for your passion and commitment to a healthier future.

Anyone interested in contributing to CHRIM by becoming a member of one of our volunteer committees or at the Board level is encouraged to reach out to our Resource Manager, Kelly Ross. Our organization thrives with the input of a wide variety of perspectives and skills.

Thank you for your continued commitment and support of our research institute!

Special MOMENTS

IN 2018



Population Health researcher, **Dr. Jennifer Protudjer**, joins CHRIM. Her research focuses on the environmental risk factors for, and societal consequences of allergic diseases, which she investigates using mixed methods.

Drs. Meghan Azad and Nathan Nickel's project was one of seven to be awarded funding through the Canada Foundation for Innovation's John R. Evans Leaders Fund. The funds will support the Manitoba Interdisciplinary Lactation Centre, a provincial infant feeding database and human milk biorepository.



Taylor Morriseau received a Vanier Canada Graduate Scholarship for her work investigating how a traditional Oji-Cree diet can affect diabetes rates.



CHRIM collaborated with Mayor Brian Bowman's office to host the first-ever flag raising for **congenital diaphragmatic hernia awareness** at City Hall – a serious and often fatal condition in which babies are born with a hole in their diaphragm.

CHRIM's Dr. Richard Keijzer is a top surgeon and scientist on this topic, and was given the opportunity to speak at the event, along with one of the families he works with.



The inaugural **DREAM Trainees Lectureship** was hosted by graduate and undergraduate students within the DREAM theme at CHRIM. The Lectureship aims to connect diabetes researchers from around the world with the DREAM diabetes research team and the University of Manitoba community.



Development of artwork in the **CHRIM stairwell** to promote creativity and inclusivity within the Institute, and to encourage exercise by motivating visitors and staff to take the stairs. CHRIM worked with a local artist collective and hired University of Manitoba students to paint scenes reflecting Indigenous culture.



Dr. Ayesha Saleem joins CHRIM as a Principal Investigator. Her research is focused on deciphering extracellular signalling as mediated through extracellular vesicles, that regulate the interplay between host tissue and imposed challenges.



Dr. Chris Pascoe received a Banting Postdoctoral Fellowship for his research project “Understanding the association between artificial sweetener consumption during pregnancy and the increased risk of asthma in offspring.”

The **Child Health Research Days** public forum featuring Dr. Michael Skinner (was a sold-out success with more than 200 guests and many more on the wait list). Attendees included high schools students, teachers, and principals; community groups; and many interested members of the general public.



Dr. Meaghan Jones is recruited at CHRIM. Her research focus is the role of epigenetic changes in the link between mothers’ exposure to inhaled pollutants like cigarette smoke and their children’s risk of developing asthma.

The Children’s Hospital Foundation of Manitoba reveals the **Michael and Lilibeth Schlater and Family Pediatric Epilepsy Monitoring Unit**, which will reduce costs and significantly shorten wait times for Manitoban children with epilepsy.



CHRIM organized a walk around campus for **Orange Shirt Day** to show support for the St. Joseph Mission residential school commemoration event held in Williams Lake, BC.

This has become an opportunity for First Nations, local governments, schools, and communities to come together in the spirit of reconciliation and hope for generations of children to come.

2018

YEAR IN REVIEW

MAKING HEADLINES

25



researchers made media appearances in 2018 by weighing in on trending topics as experts in their fields.

36



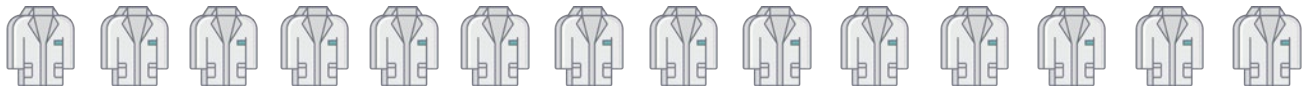
CHRM publications, projects, and achievements hit the news – locally, nationally, and globally.

MEMBERSHIP

14

researchers joined the Institute as new members.

- » Lori-Anne Archer
- » Neil Desai
- » Rachel Dwilow
- » Ryan Giuliano
- » Meaghan Jones
- » Lauren Kelly
- » Deepak Louis
- » Jennifer Potter
- » Jennifer Protudjer
- » Florencia Ricci
- » Leslie Roos
- » Ayesha Saleem
- » Anna Shawyer
- » Tabrez Siddiqui



ONLINE PRESENCE

291 new followers on Twitter

→ **14,658** profile visits

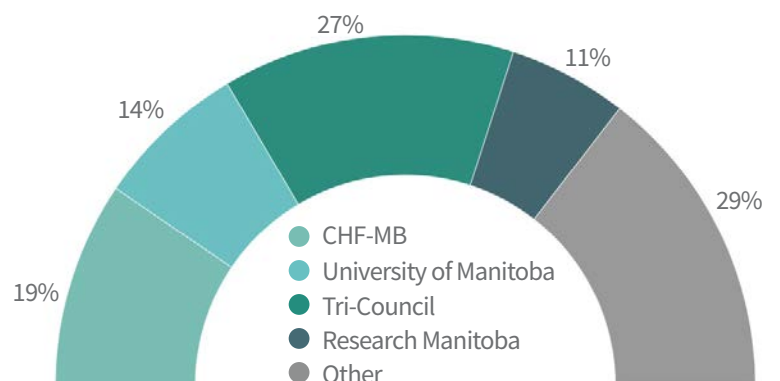
100 new likes on Facebook,

a reach of → **41,790**

FUNDING COLLABORATION

Active research dollars in 2018 totalled

\$19,496,666





SCIENTIFIC Breakthroughs

A Breath of Fresh Air

Dr. Neeloffer Mookherjee led a study that examined the effects of exposure to diesel exhaust (DE) on human lungs. Inhaled air pollution is a well-known human health hazard. Traffic-related air pollution is associated with an increased risk of respiratory diseases such as asthma and Chronic Obstructive Pulmonary Disease (COPD), enhanced allergic responses, and an increased risk of lung infections. The study is the first of its kind to examine the complete protein response to the common real-world combination of DE and allergens in humans.

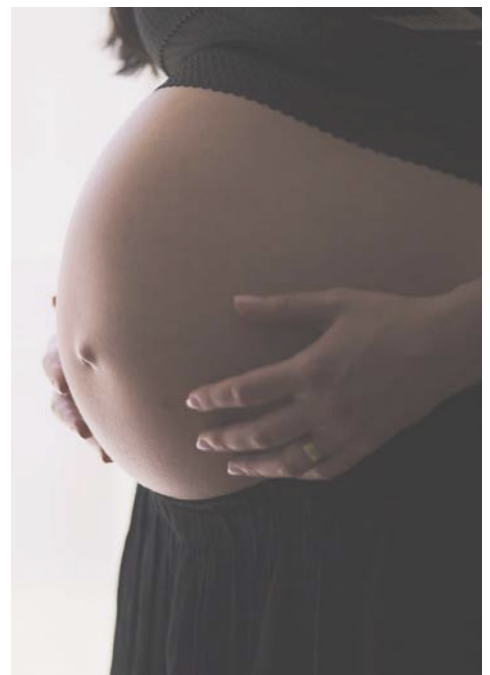
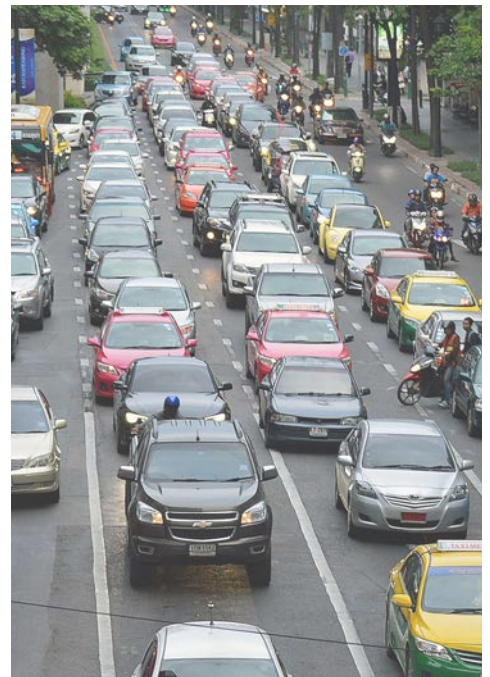
The study found that exposure to DE and allergens together can alter two groups of proteins in the human lung: those related to immune response and infection protection, and those related to inflammation and oxidative stress. Results suggest that inhalation of DE or traffic-related air pollution may enhance the risk of lung infections in people who are already susceptible to allergies, by altering the overall protein composition of their lungs.

Impacting the Future

A new study led by **Dr. Brandy Wicklow** found that a child's risk of developing early onset diabetes is impacted by exposure to diabetes during pregnancy, as well as by the type of diabetes they are exposed to, and whether or not they are of First Nations descent.

Findings show that children exposed to type 2 diabetes during pregnancy, and who are of First Nations descent, have the greatest likelihood of developing type 2 diabetes before 30 years of age. Those who were exposed to gestational diabetes, and who are of First Nations descent, had a smaller but still greatly increased risk of early onset type 2 diabetes, compared with those who are First Nations but were not exposed to diabetes.

Non-First Nations children were more likely to develop early onset type 2 diabetes in their teens or twenties, versus First Nations children who have been diagnosed as young as four years old.



Contact Us

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Support

The Children's Hospital Foundation of Manitoba provides over \$4 million in funding for research grants, operations, and facilities support in partnership with the University of Manitoba, which provides over \$2 million in salary support in addition to \$650,000 in facilities support for the research institute.



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