



# DEVOTION

Developmental Origins of Chronic Diseases in Children Network

***Together We can Dramatically Reduce The Burden & Costs Associated with Chronic Disease in Manitoba Children***

## Message from the Executive Director

The last few months have been extremely busy for the DEVOTION Network. We actively participated in the Child Health Research Days by hosting a DOHaD-themed section of the program and held our first Annual Meeting where we launched our new [Strategic Plan](#). Both events were very well attended and helped to share the work of the Network to a broader audience.

Our goals for the next few years are to (a) generate DOHaD knowledge, (b) enhance capacity, and (c) impact policy, practice and research. These goals and all future work of the network will be guided by three priorities: development of scientific capacity; stakeholder engagement; and the development of a sustainable operational model.

I am also very pleased to have our newest team member join us. Natalie Rodriguez, Senior Administrative Assistant, started on November 14th. Stop in and say hi in our new office in 501B JBRC!



Newsletters

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[www.devotionnetwork.com](http://www.devotionnetwork.com)

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## The 5th Canadian National Perinatal Research Meeting

The 2018 Canadian National Perinatal Research Meeting is fast approaching – February 14 to 17, 2018 at the Banff Arts Centre. We thank everyone for their interest in the event. This year there were a record breaking 300 abstracts submitted!! Frequent visits to the constantly evolving [website](#) will ensure that you remain up to date on workshops and concurrent sessions.

To stay current, please visit [www.cnprm.org](http://www.cnprm.org) regularly. For sponsorship and in-kind support, please contact Dr. Vernon Dolinsky via [vdolinsky@chrim.ca](mailto:vdolinsky@chrim.ca). For all other enquiries, please contact Tannis Erickson via [cnprm@chrim.ca](mailto:cnprm@chrim.ca).

## Upcoming events:

**November 22 to 23, 2017** - [Indigenous Institute of Health and Healing Ongomiizwin: Research](#), Bannatyne campus, University of Manitoba

**November 1 to 30, 2017**– The iCARE video “The realities of living with T2D: facts and fallacies” is in the 2017 the [CIHR-IDYCH Video Talks Competition](#)! Vote by ‘liking’ the video [here](#).

**January 25 to 27, 2018** - [Early Years Conference 2018](#), Vancouver BC

**February 14, 2018** - [2nd Annual Canadian DOHaD Society Meeting](#), Banff AB

**February 14 to 17, 2018** - [Canadian National Perinatal Research Meeting](#), Banff AB



**Dr. Christine Doucette's** research program is focused on understanding how and why the pancreatic beta cell fails to secrete appropriate amounts of insulin in the development of type 2 diabetes (T2D). An important ongoing project in the Doucette Lab involves investigating the mechanistic impact of a genetic polymorphism in the Hepatocyte Nuclear 1-alpha (HNF-1a) gene, termed HNF-1aG319S, on beta cell function. The HNF-1aG319S variant is found only in people of Oji-Cree heritage and strongly associates with early-onset T2D. Interestingly, less than two generations ago, a diagnosis of T2D in the Oji-Cree population was rare, despite the presence of this gene variant. The dramatic rise of T2D in Canadian Indigenous populations has coincided with rapid and extraordinary changes in diet and lifestyle. Dr. Doucette and her team are examining how environmental

exposures (i.e. diet composition, gestational exposure to diabetes) interact with the HNF-1aG319S variant to influence T2D development. Our goal is to gain a broader understanding of the etiological factors that trigger youth-onset T2D to develop appropriate intervention and prevention strategies. Recently, Dr. Doucette was awarded an infrastructure grant from DEVOTION, which was used to develop the first-ever mouse model of the HNF-1aG319S polymorphism. This model will be instrumental in understanding how this gene variant affects metabolic health and will allow us to formally explore how environmental influences affect diabetes development in carriers of this polymorphism. Dr. Doucette's work in this area has recently earned her the **Dr. John A. Moorhouse Fellowship in Diabetes from the Diabetes Foundation of Manitoba** (\$120,000). This research program is also generously funded by operating grants from Research Manitoba (\$225, 000) and the National Sciences and Engineering Council (NSERC; \$140,000).

### Public and Patient Engagement (PPE)

The most direct way that I've been involved with patient engagement has been working with the iCARE cohort study. I facilitate in-person meetings, support priorities identified by our patient advisory group (PAG), and essentially help to link the iCARE research team to people with lived experience.

I wanted to hear the perspectives of people within the advisory group so (you guessed it) I wrote some [blogs](#). I sat down with Dr. Brandy Wicklow around building a PAG into diabetes research, and will feature the perspectives of the advisors themselves in a future newsletter. The key things Brandy has learned so far:

- \* **Expectations go both ways**—patients have expectations and so do researchers. Asking what those expectations is important.
- **Research and clinical care are one and the same**—it was important to find young advisors who had experience with clinical care because their voice contributes to research that will impact how kids are taken care of in our clinic.
- **When we incorporated the voice of our patients, we recognized how big of a priority mental health is**—beyond measuring biological factors, the team is now using a bio-psycho-social approach to determine the impact that mental health (such as stress) has on kidney health.
- **The biggest challenge?** Getting everyone in a room together and including the voice of people living in more distant Northern communities due to logistics and cost.

- Content provided by Leanne Dunne, DEVOTION's Knowledge Exchange Coordinator

## Researchers' Successes (please click [here](#) for a complete list)

### Highlight– Partners in Inner City Integrated Pre-Natal Care (PIIPC)



Congratulations to **Dr. Maureen Heaman and the PIIPC team** for publishing the Partners in Inner-city Integrated Pre-natal Care (PIIPC) **Final Evaluation Report**. The full report can be accessed [here](#). More information on PIIPC can be found [here](#).

**Happy Retirement wishes for Dr. Maureen Heaman**, who will be retiring in December 2017. Maureen has made significant contributions to the field of maternal health over her career, and has been integral to the DEVOTION policy pillar. We wish Maureen all the best and a wonderful retirement!

### Happy Birthday CHIL D Study!

On November 4th, the CHILD study celebrated it's **5th birthday** at the Royal Aviation Museum of Western Canada. Over 150 stakeholders (families, policy makers, funding partners) joined the research team for a panel discussion to learn the latest findings of the study, and celebrated with cake and prizes. A great example of knowledge translation within DEVOTION! Congratulations to the CHILD team on your success!



### Recent Publications:

Congratulations to **Dr. Meghan Azad , Dr. Becker, Rishma Chooniedass** along with other authors for their recent publication in the Journal of Allergy and Clinical Immunology, entitled ***“Reduced risk of peanut sensitization following exposure through breastfeeding and early peanut introduction”***. The publication be accessed [here](#).

Congratulations to **Dr. Nathan Nickel** along with other authors for their recent publication in BMJ, entitled ***“Protocol for establishing an infant feeding database linkable with population-based administrative data: a prospective cohort study in Manitoba, Canada”***. The publication can be accessed [here](#).



## Trainees' Updates



### Impact of Antenatal and Postnatal Statin Therapy on Congenital Diaphragmatic Hernia

Aruni Jha is working with Dr. Keijzer to evaluate the efficacy of statin therapy given pre and post-natal to treat congenital diaphragmatic hernia (CDH) in a rat model. They are almost finished their first

aim, which is determining how much of the simvastatin given to pregnant moms ends up in the amniotic fluid. Once this is determined they will go forward with intra-placental delivery at this dose and determine if beneficial effects exist in the context of CDH.

### Assessing Asthma Risk Following Exposure to Gestational Diabetes in a Mouse Model

Chris has just finished the breeding protocol for their mice and is now starting to determine whether the offspring from moms with gestational diabetes (GDM) are more susceptible to asthma than those from moms without GDM. The preliminary results that show that offspring from moms with GDM (males or females) are heavier than their non-GDM counterparts. This data aligns with data shown previously by Dr. Dolinsky in his studies. They hope to have data on the lungs in the next 2 months.



## Indigenous Doula Initiative

In Dec 2016, First Nations (FN) Grandmothers were brought together to help guide the Doula Initiative. Women of the DEVOTION team were invited to attend & listen to the Grandmothers teachings & guidance at the Turtle Lodge. Recommendations from the grandmothers included bringing the doula training to other communities after an evaluation of the pilot initiative; Call to Action to understand life from an Indigenous perspective; ensuring that leadership and control stays with First Nations.

A partnership with Dr. Jamie Cidro from the University of Winnipeg, Nanaadawewigamig and the Manitoba Indigenous Doula Initiative was formed and these partners were successful in a CIHR application. This is a culturally based health intervention intended to improve health and birth outcomes for FN women in communities who travel for birth. This work explores the role of Indigenous Ways of knowing to train birth workers to support women who travel for birth. Expectant mothers will be paired with a local Indigenous doula (birth helpers) who has had culturally specific doula training with an Indigenous Midwife. These Doulas will be paid to provide the service to expectant mothers. When the expecting mother is transferred for birth, she will continue to receive care from an Urban Indigenous Doula. Funding from the Lawson Foundation will also provide support to this initiative in 2017 onward.

*- Content provided by Leona Star, DEVOTION's Indigenous Program Director*

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