

## CHILD families speak at the 2019 AllerGen conference



Above: Lily Raine Hoffman and Harmoni Hoffman represent Manitoba families at the 2019 AllerGen conference.

Members of four families participating in the CHILD Study—one from each province in the study—stole the show when they took to the stage at AllerGen's 2019 Research Conference in Toronto.

They answered questions from scientists, student and members of the community about their experiences in the study, like what being part of the study was like, how it might be improved, why they wanted to stay involved, and about how being involved makes them think about science. The children expressed interest in producing posters about the study, and, having so enjoyed meeting each other, in finding a way to interact online with their peers in the study.

Having researchers and families in the same room helped people feel involved and energized for the future of the CHILD Study, because no longer were participants a number on a form, but a child with a family with great ideas for moving forward.

To read more, click [here](#).

### Did you know:

Having a pet might influence the microbiome in a positive way. CHILD found that babies in homes with furry pets, especially dogs, had more of two types of bacteria associated with lower rates of allergies and obesity. Learn more about the microbiome and CHILD's findings by watching their new video:

English: Watch the video [here](#)!

French: Watch the video [here](#)!

## Studying Breastmilk

Gut bacteria (microbiota) play an important role in health – from providing essential nutrients, to breaking down dietary fiber, to ensuring proper development of the immune system. Not much is known about a breastmilk bacteria, but we do know breastmilk contains many different bacteria that help infants establish their gut microbiota. Different factors may disrupt this health process increasing the risk of developing chronic diseases such as allergy, asthma and obesity.



Shirin Moossavi, a PhD student in the Azad Lab, recently did a study that examined the breastmilk bacteria of 393 mothers from the CHILD cohort. This study showed that breastmilk from healthy mothers contains a wide variety of bacteria that are different in different mothers. Differences in the make up of the breastmilk was related to maternal factors like body mass index, as well as breastfeeding practices like direct nursing at the breast, or pumping and feeding breastmilk from a bottle. The different breastmilk bacteria in mothers who pump might help explain why babies receiving pumped milk had slightly higher rates of asthma compared to babies fed exclusively at the breast. Future research will focus on why we see differences and how they might influence infant health.

To read more, click [here](#).

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## What to expect: 8-year visit

1. At home, the child collects a pee, poop, and teeth samples.
2. At the clinic, we will take measurements (e.g., how tall they are, blood pressure) of the child and the parent(s) and gently swab the child's nose.
3. We do a DXA scan. This measures the strength of the children's bones and their body fat and muscle mass.
4. There is an allergy skin prick test to see if the child has allergies to things like peanuts or mold.
5. There is a breathing challenge to look for signs of asthma.
6. A doctor will discuss the health of the child with the family.
7. The child will answer questions about how they feel and act.
8. We will take a blood sample. Numbing cream is provided to make sure the needle hurts as little as possible.



## Breathing Challenge

We're testing your child's lungs to see how "twitchy" they are.

1. The child does a simple breathing test which measures how fast and how much air can be blown out of their lungs.
2. Then, the child will inhale doses of methacholine (a safe drug that can cause narrowing of the airways).
3. After each dose, a breathing test will be repeated to measure the narrowing of the airways.
4. The test continues until either the child reaches the maximum dose with minimal change in their lung function or they experience a 20% drop in breathing ability. A 20% fall in breathing ability is the point where most of us would feel as though we are having symptoms of mild asthma.



## What's a DXA scan?

DXA stands for Dual Energy X-Ray Absorptiometry. The DXA scan is used to measure the strength of the children's bones and their body fat and muscle mass. The DXA machine uses a very low power x-ray beam to take a picture of the child's whole body and lower spine. The x-ray dose is less than 1/10th that of a chest x-ray. Each scan is painless and takes about 3 minutes.

Do you want to get involved and make a difference?

### Join the CHILD Parent Advisory Committee!

The CHILD Parent Advisory Committee (PAC) meets 4 times a year to advise the CHILD research team about what should be studied, how it should be studied, and how CHILD should get research findings to parents.

Food, drinks, and childcare is provided.

Contact Brittany Semenchuk for more information: [bsemenchuk@chrin.ca](mailto:bsemenchuk@chrin.ca)



## Meet the Researcher: Dr. Meghan Azad

Dr. Meghan Azad co-leads the Manitoba CHILD Study site with Dr. Allan Becker, MD. Meghan has published over 20 articles using data from the CHILD Study and presented this research all over the world. She first joined the CHILD Team in 2010 to study infant gut bacteria, using the dirty diapers collected when the CHILD babies were just a few months old. She found that breastfeeding was an important factor influencing gut bacteria. To understand how this works, her team is now analyzing the CHILD breastmilk samples. Meghan is very excited that we are collecting stool samples again at the 8-year visit because this will provide unique information about how gut bacteria change from infancy through childhood, and what this means for child health. Outside of CHILD, Meghan enjoys traveling and experimenting in the kitchen with new recipes.

Follow Meghan on Twitter @MeghanAzad