



CHILD

COHORT STUDY

NEWSLETTER

SPRING 2020

Dear CHILD Cohort Study kids, parents and families:

WELCOME

to our first-ever national participant newsletter!

This newsletter allows us to communicate directly with you – **the heroes of CHILD** – and to keep you informed about our study's progress together. In these pages, we are excited to share with you CHILD's latest achievements and to keep you up-to-date on the latest news, events, activities and experiences of our families, staff, researchers and partners.

THANK YOU for your participation in CHILD. Your continued commitment to this research study is critical to helping us better understand, and hopefully one day prevent, illnesses and chronic health conditions that develop in childhood.

So, read on to find out what we're working on now and how your participation in CHILD is helping kids to live healthier lives.

Again, thank you for your incredible commitment and dedication. We simply cannot do this without you.

Padmaja (PJ) Subbarao
MD, M.Sc.
CHILD Cohort Study Director

ISSUE #1



SAY "HELLO"

to CHILD's new name & logo

When your family joined CHILD more than 10 years ago, the Study was called the Canadian Healthy Infant Longitudinal Development (CHILD) Study and the logo showed a mother cradling her infant.

Our study children are no longer infants and they now range in age from 7 years old to the pre-teen age of 12! So, in 2019, we refreshed the study's name and logo.

We are now called the "CHILD Cohort Study" ... still known as CHILD for short. Our new logo reflects the growth and maturation of our study children and the expanding focus of our research. We even added a maple leaf to give a nod to our study's Canadian roots.

We hope you like CHILD's new look!

CHILD video wins national award!

In January, CHILD won 2nd place and a \$1,000 award in a national video competition!

The competition chooses Canada's top videos that present clear, evidence-based messages designed to have a positive impact on the health of children, youth and families.

CHILD's video, called *The CHILD Cohort Study and a Baby's Microbiome*, takes us on a journey into the world of a baby's gut microbiome. It shares CHILD research discoveries that are helping us to understand allergies, asthma, obesity and everyday health and wellbeing, especially during childhood.

The video received an average score of 4.5 out of 4.9 and has been viewed over 7,200 times.

The competition is held annually by the Institute of Human Development, Child and Youth Health (IHDCYH), one of the Canadian Institutes of Health Research (CIHR).

[Watch the video](#)



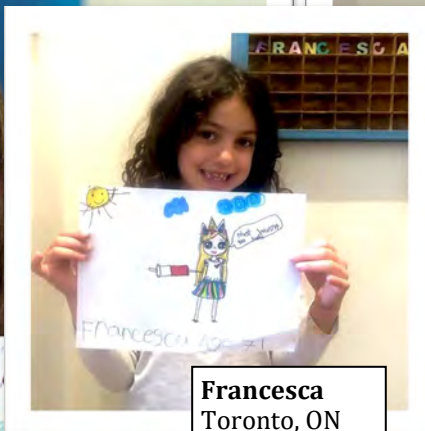
CHILD

COHORT STUDY

Ashton
Edmonton, AB



Francesca
Toronto, ON



Linus
Winnipeg, MB



CHILD KIDS GET ARTSY!

Announcing CHILD's first-ever National Poster Contest, open to ALL kids in the CHILD Cohort Study. CHILD kids have been grabbing their paper, crayons and markers and...

GETTING ARTSY!

There is a prize for EVERY poster, plus 4 regional prizes and 1 awesome national prize! Posters are about anything to do with the CHILD Cohort Study.

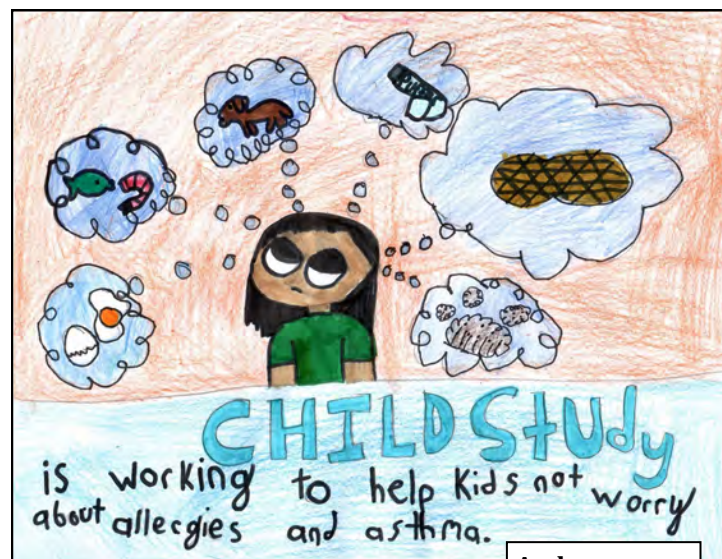
For example, some posters tell us what a CHILD clinic visit is like... or what being part of the study means to participants... or even something CHILD has discovered.

Kids have been scanning or taking pictures of their posters and emailing them to their CHILD research coordinators. Winners will be announced soon after the extended entry deadline of **Friday, May 22, 2020.**

[Click here for more information.](#)



Amaea
Vancouver, BC



Andy
Toronto, ON

CHILD’S DIRECTOR “DOWN UNDER”

At CHILD’s helm, Study Director PJ Subbarao took a recent sabbatical from her position as a doctor at SickKids Hospital to explore ways to sustain and expand CHILD further.

PJ recently finished up a six-week stint of networking with scientists in Australia and New Zealand, and she has plans to collaborate with European health cohort leaders and researchers in the future.

“Taking on CHILD’s directorship has allowed me to pursue international collaborations, build up CHILD’s profile, and increase our productivity,” she says.



PHOTOS: PJ visiting the Dunedin Multidisciplinary Health & Development Study—the birth cohort that inspired the CHILD Cohort Study—in Dunedin, NZ, with Meghan Azad, the co-leader of CHILD’s Manitoba site (insert).

Compliments of Dr. Azad.



SEARS STUDENTSHIP AWARD

CHILD has launched a special training award for a university student to work with a CHILD research team over the summer vacation.

The *Sears Undergraduate Summer Studentship* honours Dr. Malcolm Sears, the Study’s Director until 2017, and shows CHILD’s commitment to helping students develop an interest in research.



Faith Kirabo, a student at the University of Manitoba, is the first winner of the award.

This summer, Faith will work with Meghan Azad’s research team in Winnipeg to study whether living in the city (urban environment) or country (rural environment) makes a difference to whether a child develops allergies.

Welcome,
Faith!



Malcolm Sears with Study participants at AllerGen’s Research Conference in Toronto, January 2019.

A woman with long brown hair is looking down at a clear spray bottle with a red trigger. The bottle has some text on it, but it's not legible. The background is blurred, showing what looks like a kitchen or a similar indoor space.

LATEST DISCOVERIES

from  **CHILD**
COHORT STUDY 

Do household cleaning products contribute to childhood asthma?

CHILD research has found that babies who grew up in homes where household cleaning products were used frequently were more likely to have asthma by three years of age.

The study looked at a baby's exposure to 26 types of household cleaners, including dishwashing and laundry detergents, cleaners, disinfectants, polishes, and air fresheners.

In addition to asthma, babies who were frequently exposed to cleaning products were more likely to have recurrent wheeze (a whistling sound in the chest) and a combination of wheeze with an increased risk of developing allergies.

Spray products like air fresheners, deodorizers, and dusting sprays, as well as antimicrobial hand sanitizers and oven cleaners, seemed to have the biggest impact.

"It may be important for parents to consider removing scented spray cleaning products from their cleaning routine. We believe that the smell of a healthy home is no smell at all!"

Lead researchers: Dr. Tim Takaro and Jaclyn Parks. Jaclyn is pictured above.

[Read about the research](#) and hear the [podcast](#).

Traffic pollution during pregnancy

A pregnant woman's exposure to traffic pollution in the first three months of pregnancy is associated with her child having an increased risk for allergies.

The study used geographic models to determine the level of traffic pollution the pregnant women were exposed to. When their children were one year of age, they had skin prick tests to check for allergic risk.

The study also found that a biological marker can be used to understand how exposure to traffic pollution changed the molecular make-up of a cell to affect the activity of a baby's genes related to asthma and allergy.

"In other words, we found that pregnant moms who were exposed to traffic pollution gave birth to babies with a biological marker or 'tag' on their DNA – and this marker predicted that the baby would be more susceptible to allergies at age one."

Lead researchers: Dr. Stuart Turvey, Dr. Hind Sbihi and Dr. Mike Kobor (CHILD Vancouver site)

[Read about the research.](#)

BABIES SHOULD EAT PEANUT EARLY

to help prevent an allergy

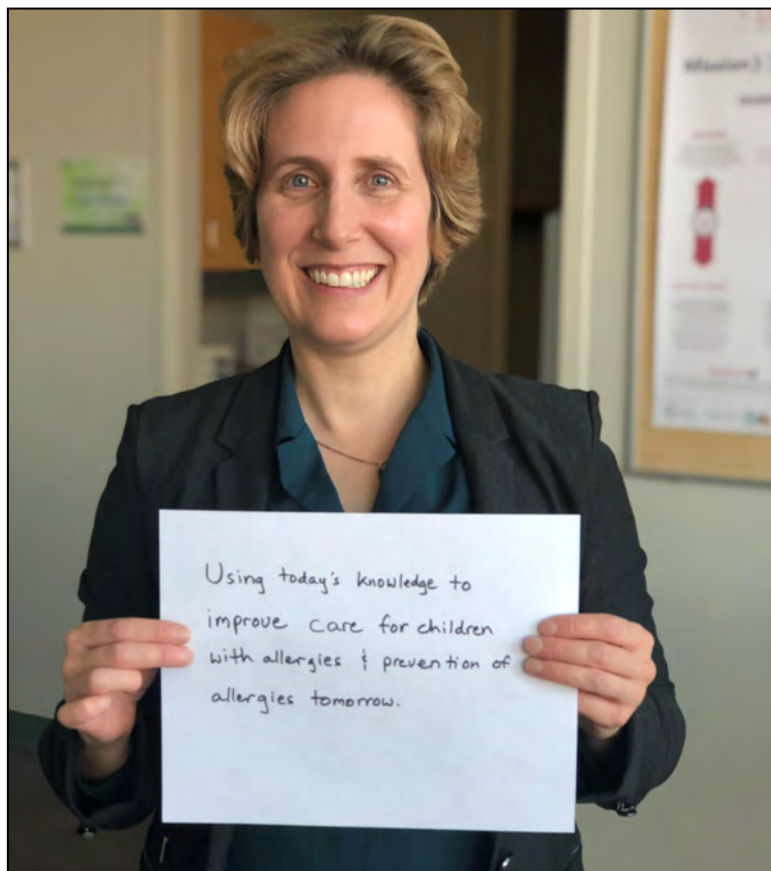
CHILD research has found that children who did not eat peanut in the first year of life were four times more likely to develop a peanut allergy by age three, compared to children who had peanut before their first birthday.

The same study found that children who did not have peanut introduced into their diet by the age of 18 months were seven times more likely to be allergic to it than children who consumed peanut before nine months of age.

“This tells us that if peanut is not introduced before the age of 12 months, it should still be introduced as soon as possible, even to infants at a low risk of peanut allergy.”

Lead researcher: Dr. Elinor Simons (CHILD Manitoba site), pictured at right.

[Read about the research.](#)



MOM'S DEPRESSION IN PREGNANCY

Can it affect her baby's immune system?

Babies born to mothers who were depressed in the last trimester of pregnancy had reduced levels of an important immune antibody called secretory immunoglobulin (sIgA).

sIgA is thought to play a critical role in reducing the risk of allergies by helping a baby's developing immune system to recognize the difference between harmful and harmless substances.

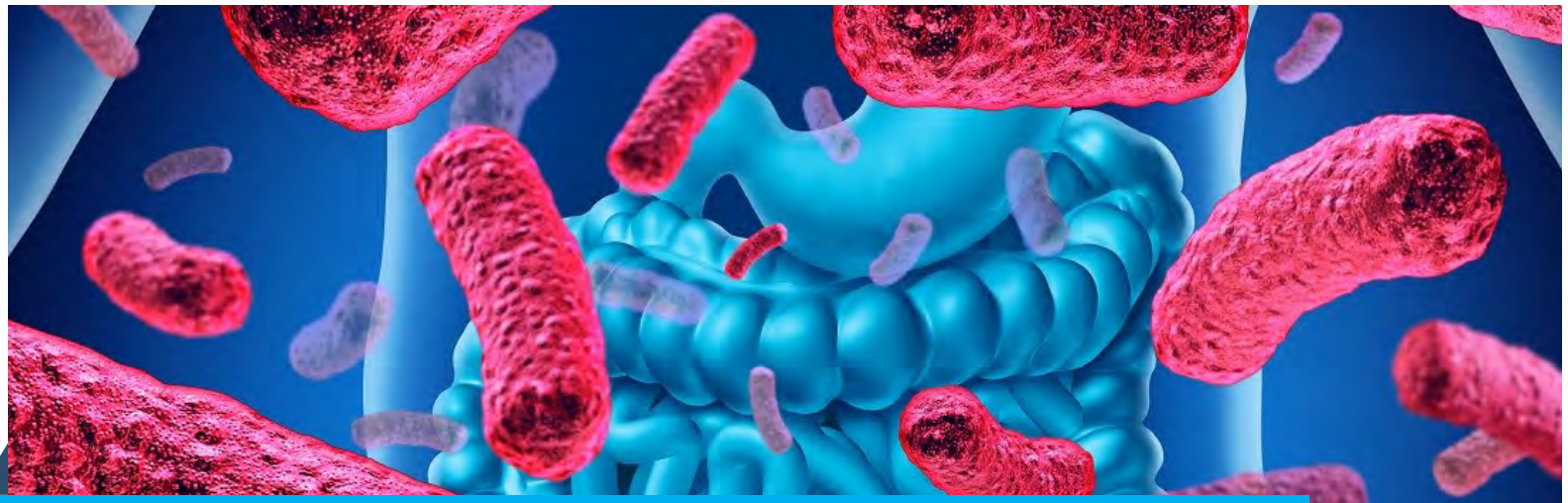
The study found that when mothers experienced depression in the third trimester of pregnancy, their babies were more than two times as likely to have low sIgA levels as infants whose mothers were not depressed.

“These findings suggest there is a critical window for the influence of maternal psychological stress on the development of the infant gut microbiome and immunity.”

Lead researchers: Dr. Anita Kozyrskyj and Liane Kang (CHILD Edmonton site), pictured at left.

[Read about the research.](#)





WHAT ARE WE STUDYING NOW?

How do gut bacteria influence asthma?

A new \$2 million grant will allow CHILD to study the trillions of microorganisms living inside the human body and uncover the role they play in causing asthma.

The study will look at how a baby’s genes and sex (male or female) influence development of gut bacteria and how that relates to kids developing asthma.

Previously, CHILD has shown that breastfed babies have higher levels of beneficial gut bacteria and a lower risk of developing asthma as they get older. This new funding will also help CHILD researchers understand the role that early-life exposures like breast-feeding play in modifying those bacteria.

“This grant shows how valuable CHILD is as a platform for new and exciting research.”

Lead researchers: **Dr. PJ Subbarao** (CHILD Director) and **Dr. Meghan Azad** (CHILD Manitoba site)

Grant: CIHR’s Canadian Microbiome Initiative 2

How does breastmilk help babies to grow up healthy?


CHILD breastmilk samples will be analyzed as part of a \$6.5 million study funded by Microsoft founder Bill Gates through the Bill & Melinda Gates Foundation.

Meghan Azad (CHILD Winnipeg site co-lead) has been chosen to lead the new international health initiative. As Director of the International Milk Composition Consortium (IMiC), she will bring together research groups studying maternal nutrition and infant growth in Tanzania, Pakistan, Nepal, Burkina Faso and Canada.


“It’s amazing to have this kind of global investment dedicated to studying breastmilk. By analyzing milk samples from women in these five countries, including samples provided by our own CHILD moms, we hope to make a huge contribution to understanding the components of human milk that are important for healthy infant growth.”

Lead researcher: **Dr. Meghan Azad** (CHILD Manitoba site co-lead)

Grant: Bill & Melinda Gates Foundation




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CHILD Cohort Study

3400+ Canadian kids are helping to predict, prevent and treat chronic diseases




For participants

- Poster content
- CHILD newsletters
- Your A/9- your visit



For scientists

- Cohort profile
- Study data
- Publications



For media

- Discoveries so far
- Media coverage
- Press releases

For the latest about CHILD research, activities, media coverage...

childcohort.ca

Let us know how you like this newsletter and send us suggestions for future stories: child@mcmaster.ca