

# THE CHILD STUDY: EDMONTON EDITION ...keeping in touch

Winter Issue



We hope that all of our CHILD families are enjoying winter. We are continuously working on how best to share the study results and news with you.

## Introducing our newest office members:

Tieghan Baird is our new psych intern. She brings with her a passion for developmental psychology and speech-language pathology. Tieghan administers the neurodevelopmental tests with our 3 and 5 year olds. When she is not handing out stickers to children in the office, you can find her coaching gymnastics!



Rhiannon Williams is our business co-op student who manages the volunteer student program at the University of Alberta known as Little Bit of Help (LBoH). When she is not diligently working in the office, she is busy riding and training her horse Donny!

## Important Numbers



**Two Years:** While we are sad to see them go, we have

**completed** our two-year visits!

**Three Year Visit:** We have 221 visits to go!

**Four Year Visit:** Just a reminder that there won't be any four year visits, however we'll be sending **questionnaires** through email for you to complete.

**Five Year Visit:** We have 690 visits to go!

## What can you do as a subject?

.. Stay in touch!

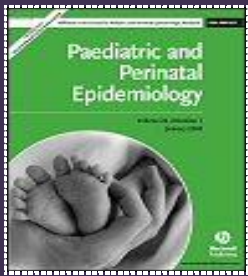
Have you had a recent change of mailing address, telephone number or email address? – Please update the local CHILD team at: 780-407-8084 | [chikuma@ualberta.ca](mailto:chikuma@ualberta.ca)



... Questionnaire completion! Timely completion of the questionnaires is greatly appreciated and the data you provide is very valuable information. We are happy to assist!

Call or email us:  
780-407-8084 | [chikuma@ualberta.ca](mailto:chikuma@ualberta.ca)

## CHILD Study Published!



The CHILD study was published in the [Paediatric and Perinatal Epidemiology Journal](#)!

Here is a summary of the article: "The CHILD study is an exciting, ambitious, and transformative endeavor charged to uncover key determinants of early life development of asthma and allergy. This project involves the collection, processing, and storage of thousands of biological samples from thousands of subjects. These samples are linked to extensive questionnaire data and clinical outcomes.

This sample and data repository is a tremendous resource and will provide a wealth of information not only relevant to asthma and allergy, but also to many other aspects of health of Canadian children."

**Full article published in PPE:**  
<http://onlinelibrary.wiley.com/doi/10.1111/ppe.12161/full>

## Hot off the Press



The CHILD article: "The Canadian Healthy Infant Longitudinal Development (CHILD) birth cohort study: assessment of environmental exposures" will be published in the [Journal of Exposure Science and Environmental Epidemiology \(JESEE\)](#).

Here is an overview of the article: "Over 3,600 pregnant mothers were recruited from the general population in four provinces. Assessments of early life exposures are focused on those linked to inflammatory responses driven by the acquired and innate immune systems. Mothers complete extensive environmental questionnaires including time-activity behavior at recruitment and when the child is 3, 6, 12, 24, 30, 36, 48 and 60 months old. House dust collected during a thorough home assessment at 3-4 months, and biological specimens obtained for multiple exposure-related measurements, are archived for analyses. Geo-locations of homes and daycares and land-use regression for estimating traffic-related air pollution complement time-activity-

behavior data to provide comprehensive individual exposure profiles. Several analytical frameworks are proposed to address the many interacting exposure variables and potential issues of co-linearity in this complex dataset."

**Full article will be made available on JESEE website:**  
<http://www.nature.com/jes/index.html>



Please visit our website for a list of publications, abstract and conference presentations to date:

<http://www.canadianchildstudy.ca/knowledge.html>

The *Canadian Medical Association Journal (CMAJ)* has selected a 2013 paper by AllerGen researchers to receive the **[Bruce Squires Award](#)** for publication most likely to positively impact practice. The research used CHILD Study samples and highlighted the potential impact of early childhood exposures, such as the method of delivery in childbirth and the method of infant feeding, on lifelong health. Research paper published in CMAJ:  
<http://www.cmaj.ca/content/185/5/385>

## Sleep and Sleep Disordered-breathing: Findings from Thesis



Did you know that a typical three-year-old child spends more time sleeping than they do awake?

The importance of sleep is undeniable, but the wide range of sleep recommendation can make parenting choices difficult. **Amanda Lau**, a recent Master of Science graduate with CHILD, sought to uncover the mysteries of childhood sleep in the CHILD Study for her Master's thesis project. Here are some **highlights** of her findings.

On average, CHILD study children slept 13.5 hours at one year of age. The National Sleep Foundation recommends that one year olds sleep 14-15 hours a day; however, sleep needs are highly individual – so there is cause for concern. Interestingly, the season in which a child was born is associated to their sleep duration. Children born in the summer and fall, slept approximately 15 minutes longer than children that were born in the winter. This difference can be explained by

the difference in light exposure. Children born in summer, especially, are exposed to longer hours of daylight which leads to changes in their circadian rhythm (our biological rhythm that dictates periods of sleep and awake) causing them to take longer to fall asleep, and thus have shorter sleep duration. Parent-infant bedtime interactions were consistently associated with sleep duration. Children that could fall asleep independently (i.e. were able to self-soothe) slept 26 minutes more than children that fell asleep with parental interventions such as rocking and feeding. A child that consistently falls asleep with parental interventions may become dependent on these cues to initiate sleep, which may lead to a common childhood sleep disorder called sleep onset associated type behavioural insomnia of childhood (BIC). Literature has suggested that placing a child in their crib awake or using sleep aids such as pacifiers may promote a child to self-soothe, which then leads to longer sleep durations.

Children with older siblings also receive more sleep than first-born children by 20 minutes!

Again, this difference could be a result of difference in parent-infant bedtime interactions. For you first time parents out there,

it may be because you have greater anxiety and respond more readily to your child. For parents with multiple children, you may behave differently merely as a result of child rearing experience or availability of time and energy. A parent of multiple children, out of necessity, may spend less time with their subsequent-born children in their child's first year of life compared to their first-born child. As a result, subsequent-born children may be more likely to fall asleep independently and learn self-soothing techniques that lead to longer sleep durations.

Sleep is important for the growth and development our child. However, it is clear that achieving optimal sleep for your child may be difficult. We thank all CHILD participants for their continual dedication with the study. Hopefully, the mystery of sleep can be unravelled further!





## The CHILD Volunteers

You've probably seen our 'Little Bit of Help' (LBoH) undergraduate volunteers around the office. LBoH is a University of Alberta affiliated program that places undergraduate students as volunteer research assistants.

The students gain valuable research experience in a clinical setting, giving them their first look in to the health care profession. CHILD simply could not run smoothly without the LBoH students.

This unique experience allows undergraduate students to learn more about clinical research through a co-curricular program that couples as a didactic clinical research curriculum with "hands-on" mentored training. Students volunteer their time to assist in the completion of research studies providing a low-cost framework for conducting clinical research. To learn more about the LBoH program, please visit <http://lboh-ualberta.com>.



## Holiday Baking Recipes!

As many of you have witnessed, there are very few days when our office is void of sweets and delightful treats. With the many recipes we have tested, there are some quick and easy ones that you can't go wrong with. Here are some of our favorites:

1. **Chocolate Crackle Cookies- Tested by Joyce**



*"Chocolatey goodness"*

For recipe visit:

<http://www.marthastewart.com/281209/chocolate-crackle-cookies>

2. **Caramel Shortbread Squares -Tested by Tieghan**



*"These cookies consist of a shortbread crust, firm caramel center, and a milk chocolate top. They are super-easy to make and they take only 20 minutes to bake."*

For recipe visit:

<http://allrecipes.com/recipe/saramel-shortbread-squares/>

3. **Noel Crisps-Tested by Tieghan**



*"A crispy version of Noel bars with the extra treat of cherries!"*

For recipe visit:

[http://allrecipes.com/Recipe/Noel-Crisps/Detail.aspx?event8=1&prop24=SR\\_Thumb&e11=noel%20crisps&e8=Quick%20Search&event10=1&e7=Recipe&solid=sr\\_results\\_p11](http://allrecipes.com/Recipe/Noel-Crisps/Detail.aspx?event8=1&prop24=SR_Thumb&e11=noel%20crisps&e8=Quick%20Search&event10=1&e7=Recipe&solid=sr_results_p11)

4. **Land of Nod Cinnamon Buns- Tested by Rhiannon**



*"Easy overnight cinnamon buns that are gooey and rich."*

For recipe visit:

<http://allrecipes.com/recipe/land-of-nod-cinnamon-buns/>



We would like to send out a heartfelt THANK YOU to all of our participants. The success of this study is driven by you all!

