

**LEAFLET**

## What's new with APrON?

### We've Moved to the Owerko Centre at the Child Development Centre (CDC)

A new research space at the University of Calgary officially opened on Wednesday, May 6, dedicated to studying neurodevelopment and child mental health including disorders such as attention deficit/hyperactivity disorder (ADD/ADHD) and autism spectrum. The Owerko Centre at the Alberta Children's Hospital Research Institute will be home to researchers, clinician scientists and staff collaborating to better understand, diagnose and treat these conditions. This achievement was made possible thanks to a \$10-million gift from Calgary philanthropists Stan and Marge Owerko to the Alberta Children's Hospital Foundation in November 2014, a portion of which was dedicated to the creation of the research space based at the university's Child Development Centre.

"We have a tremendous opportunity in the Owerko Centre to come together in ways that were not possible before," says Nicole Letourneau, one of the lead investigators at the Centre and a University of Calgary professor in the Faculty of Nursing, a research professor at the Cumming School of Medicine and the Norlien/Alberta Children's Hospital Foundation Chair in Parent-Infant Mental Health. "In this outstanding facility we have the technology and space to work with families and children on research designed to prevent and treat neurodevelopmental problems."



**Child Development Center**

**SPRING 2015**

Neurodevelopmental disorders represent one of the fastest growing health problems in the world, with nearly 20 percent of school children suffering from one or more diagnosable conditions. The cost of neurodevelopmental disorders is immense. Treatment is complex and individualized as children experience medical, physical, emotional, learning, behavioural, and social difficulties that vary drastically between disorders, and also vary between children with the same diagnosis. In addition, children often experience anxiety and depression due to the complex challenges they face and treatment typically requires support from the whole family and community.

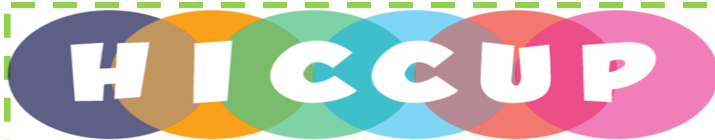
Conditions often affect individuals well into adulthood. Surveys of adults with mental health issues reveal that the majority experienced neurodevelopmental disorders in childhood.

"We know that brain-related illness can be devastating for families," says Stan Owerko, President and Chief Executive Officer of Petrogas Energy Corp. "We want to ensure that brilliant scientists have the resources they need to increase knowledge about the brain and develop new treatments to help children in our community and around the world."

Based in a 930-square-meter facility, the Owerko Centre will support researchers and their staff from multiple faculties across the University of Calgary. The space also includes special testing spaces, playrooms with observation suites, labs for the preparation and collection of biological samples and a motor skills examination area.

### Send Us Your Feedback!

If you have any comments or questions about the *APrON Leaflet*, we want to hear them! We would also like to hear your ideas for future newsletters. For anything "Leaflet-related", please contact us at [apron@ucalgary.ca](mailto:apron@ucalgary.ca). We truly value your feedback!



Healthy Infants and Children Clinical Research Program

Research is essential to improving the health and lives of children and families everywhere.

Many studies require participation from children who are healthy. Other studies compare a healthy group to one with a particular illness. These participants are called controls and they are crucial to studies exploring the causes, treatments, and outcomes of virtually all pediatric diseases. Successful control matching is a challenge for all clinical pediatric researchers but one that the community at large has the capacity to solve.

**HICCUP** was designed to harness the generous and giving spirit of the southern Alberta community to overcome this problem and provide the opportunity for improved child health research. We are building a large sample of healthy children and parents willing to consider participation in healthy control research. **HICCUP** provides a direct opportunity for children, families, and communities to directly contribute to the advancement of research and child health in Alberta. Many families wanting to “*give something back*” can do so by volunteering their time to help child and community health in a positive way.

If you and your family are willing to consider participation, please follow the next few simple steps. We will ask for simple personal information including your name, date of birth, brief medical history, and contact information. This information will be kept strictly confidential and carefully protected. You will be asked to provide your informed consent to be part of the **HICCUP** program and willingness to be contacted by investigators for invitations to participate in specific studies. Participation in HICCUP does not obligate you to participate in any actual study. Specific information will be provided and your consent sought by investigators for specific studies.

If you have any questions or concerns please contact Amaal at 403-955-2472 or [hiccup@albertahealthservices.ca](mailto:hiccup@albertahealthservices.ca)

## RESULTS

**Study Title:** Estimation of choline intake from 24 h dietary intake recalls and contribution of egg and milk consumption to intake among pregnant and lactating women in Alberta.

**Author:** Erin Lewis

Choline requirements increase during pregnancy and lactation due to a high demand by the infant for development, specifically the brain. Choline is not included in multi-vitamin supplements, nor routinely taken by women during pregnancy, therefore the diet is the primary source for this nutrient. Despite recommendations for higher intake during pregnancy and lactation there is limited research regarding maternal intake during these important periods. This study estimated choline intake during pregnancy and lactation in the APrON cohort and determined the contribution of egg and milk consumption to intake. Dietary intake data was collected from the first 600 women enrolled in the Alberta Pregnancy Outcomes and Nutrition cohort using 24 h dietary recalls collected at each trimester of pregnancy and 3 months postpartum (lactation). Mean total choline intake during pregnancy was estimated to be 347±149 mg/d with only 23% women meeting the daily recommendation. During lactation, mean total choline intake was estimated to be 346±151 mg/d with only 10% of women meeting the daily recommendation. Main dietary sources of choline by the APrON moms were dairy products, eggs and meat. Given that eggs are one of the richest sources of choline, it was not surprising that we found that women who consumed at least one egg in a 24 h period had higher total choline intakes and were eight times more likely to meet daily recommendations compared to women who did not report consuming an egg in their dietary recall. Women who consumed ≥2 cups (500 mL) of milk in a 24 h period were almost 3 times more likely to meet the daily choline recommendation compared to those women consuming <1 cup (250 mL) of milk per day. Overall we determined that the estimated intake of choline in the APrON cohort is below current recommendations but the daily consumption of an egg or 2 cups of milk may assist women in meeting the current recommendations.

HELP KEEP OUR  
FILES UP TO DATE

Staying in touch with our participants is a key part of our work. When we lose touch with people we lose some of our ability to answer important health questions. If you have moved, changed your phone number or have a new email address, please take a moment to let us know of these changes. Keep in mind that we can send you surveys and keep you up-to-date with the *APrON Leaflet* no matter where you live, even if you are outside of Alberta or Canada.



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