Prebiotic shows promise in regulating kids’ appetites

Another strategy for obesity toolbox

Boston (March 28, 2015) – The obesity epidemic among children has caused alarm throughout the United States and Canada. Achieving healthy energy intake among this age group is a widespread health concern. A new method of appetite regulation in children was recently investigated by graduate student Megan Hume from University of Calgary. The findings will be presented at the American Society for Nutrition’s Annual Meeting.

“We knew that prebiotic fiber improved appetite regulation in adults, and wanted to evaluate its potential in children,” said Hume.

Hume, working with professor Raylene Reimer, PhD, RD, Faculty of Kinesiology, recruited 42 children whose BMIs were above the 85th percentile. The children were randomized to receive the treatment, a prebiotic fiber, or to the placebo group who received maltodextrin, a polysaccharide. Both treatments were in powdered form and mixed with 250 ml water. The children were instructed to drink the mixture 30 minutes before dinner. At week 0 and week 16 Hume and colleagues collected measurements including a blood sample and subjective scales rating their appetite. The children were taken to a breakfast buffet at start and end of the study, where they had a choice of foods. Before and after eating, children rated their appetite levels and the researchers weighed their food. The prebiotic fiber group consumed 100 calories less at the final buffet and experienced more feelings of fullness. The fiber group rated their satiety levels before the meal higher than the maltodextrin group.

“These findings are promising, showing that intake of prebiotic fiber could cause a reduction in energy intake and body weight,” said Reimer. “It’s one more tool to use in the obesity epidemic. As a dietary strategy it should be in the toolbox. Of course, we still have to address all food factors in a child’s life. But this type of small, incremental change can make a positive impact on their health.”

Moving forward, the researchers said it will be important to know what happens if you give the prebiotic to normal weight kids. “In adults we know it is safe. I wouldn’t expect to see compromised growth in normal/underweight kids either and there may be other benefits from increasing fiber intake given that very few North Americans eat enough fiber every day,” she added. A second goal is for food companies to eventually put the fiber into their products.

Megan Hume, a second year master of science in kinesiology candidate, will present the findings during the Experimental Biology 2015 meeting on Saturday, March 28 at the Graduate Student Research Award competition, Boston Convention & Exhibition Center.
The study was funded by grants from BMO Financial Group, Alberta Children’s Hospital Research Institute, and CIHR.

###

**About Experimental Biology 2015**
Experimental Biology is an annual meeting comprised of more than 14,000 scientists and exhibitors from six sponsoring societies and multiple guest societies. With a mission to share the newest scientific concepts and research findings shaping clinical advances, the meeting offers an unparalleled opportunity for exchange among scientists from across the United States and the world who represent dozens of scientific areas, from laboratory to translational to clinical research. [www.experimentalbiology.org](http://www.experimentalbiology.org)

**About the American Society for Nutrition (ASN)**
ASN is the preeminent professional organization for nutrition research scientists and clinicians around the world. Founded in 1928, the society brings together the top nutrition researchers, medical practitioners, policy makers and industry leaders to advance our knowledge and application of nutrition. ASN publishes three peer-reviewed journals and provides education and professional development opportunities to advance nutrition research, practice and education.
[www.nutrition.org](http://www.nutrition.org)

**MEDIA CONTACT**
Suzanne Price  
571-239-2839  
media@faseb.org

**ONSITE NEWSROOM**
Boston Convention and Exhibition Center  
March 28 – April 1, 2015  
Phone: 617-954-3969