

WEEKLY GI RESEARCH WEBINAR

"The piglet as a biomedical model to study the bioactivity of human milk oligosaccharides."



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Human milk oligosaccharides (HMO) are the 3rd most predominant solid component of human milk. Emerging evidence has shown that various HMO structures can reduce infections, modulate the gut microbiome and influence infant cognitive and immune development. This seminar will review recent work from my laboratory on using the neonatal piglet model to investigate biological activities of HMO supplementation to infant formula on neonatal development.

References:

- Fleming SA, et al. Human and bovine milk oligosaccharides elicit improved recognition memory concurrent with alterations in regional brain volumes and hippocampal mRNA expression. *Frontiers in Neuroscience* 2020;14:770.
- Comstock SS, et al. Dietary human milk oligosaccharides but not prebiotic oligosaccharides increase circulating natural killer cell and mesenteric lymph node memory T cell populations in noninfected and rotavirus-infected neonatal piglets. *Journal of Nutrition* 2017;147:1041-1047.
- Li M, et al. Human milk oligosaccharides shorten rotavirus diarrhea and modulate piglet mucosal immunity and colonic microbiota. *ISMJ* 2014; 8: 1609-1620. .

APR 15 • 4:00 PM

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