

WEEKLY GI RESEARCH WEBINAR

**"Impact of early life  
antibiotics on the  
developing enteric  
nervous system"**

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There is building literature demonstrating that enteric nervous system and gut microbiota interact throughout development from conception to adolescence. Infants and young children receive the highest exposures to antibiotics and studies have now shown that this can predispose them to several diseases later in life. My talk will summarize the work my group has done characterizing the development of the enteric nervous system and how it is impacted by antibiotics in mouse models.

References: (1) Foong, J. P. P., Hung, L. Y., Poon, S., Savidge, T. C., Bornstein, J. C. (2020) Early life interaction between the microbiota and the Enteric Nervous System. *Am J of Physiol* 9 Sep 2020 319(5), G541-G548 doi: 10.1152/ajpgi.00288.2020. (2) Hung, L. Y., Boonma, P., Unterweger, P., Parathan, P., Haag, A., Luna, R. A., Bornstein, J. C., Savidge, T. C., Foong, J. P. P. (2019) Neonatal antibiotics disrupt motility and enteric neural circuits in mouse colon. *Cell Mol Gastroenterol Hepatol* 8(2): 298-300.e6 doi: 10.1016/j.jcmgh.2019.04.009. (3) Hung, L. Y., et al. (2020) Antibiotic Exposure Postweaning Disrupts the Neurochemistry and Function of Enteric Neurons Mediating Colonic Motor Activity. *Am J Physiol Gastrointest Liver Physiol* Jun 1;318(6):G1042-G1053. doi: 10.1152/ajpgi.00088.2020.

**MAY 27 • 4:00 PM**

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