

PIONEERS IN BIOMEDICAL RESEARCH SEMINAR

Presented by the Fralin Biomedical Research Institute at VTC, and co-sponsored by the institute's Center for Neurobiology Research



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In Person Seminar: Developmental Programming of Neuroendocrine Integration

Goal-directed behavioral decisions are the result of the neural integration of signals from the external environment (e.g. sight, taste, smell) and interoceptive information that signals internal state to the brain. Interoceptive information is conveyed to key circuit nodes responsible for goal directed behaviors by a complex system of neural connections, and the activity of these pathways has a significant impact on prioritization of external cues and adaptive responses. Hypothalamic neural networks maintain homeostasis by coordinating endocrine signals with behavioral and autonomic functions to ensure that behaviors and physiological responses remain in tune with environmental demands. Because the architecture of neural circuits determines how they function, we need to achieve a comprehensive understanding of how neural systems responsible for neuroendocrine integration are organized and determine how developmental events impact their construction and functional properties. By evaluating the impact of early hormonal and nutritional challenges on the brain-wide organization of these essential neural systems, and by profiling neuronal responses to varied interoceptive stimuli, we are gaining insight into neurobiological mechanisms underlying developmental programming of neuroendocrine integration within the functional context of feeding behavior, with direct implications for obesity.

FRIDAY, APRIL 15, at 11 a.m.

Room G101A-B, 4 Riverside Circle. Registration required to attend in person at <http://fralinbiomed.info/simerly-seminar>. Masks must be worn. Watch live via Zoom at <https://virginiatech.zoom.us/j/82722436593>.



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