CENTER FOR HEALTH SCIENCES

1ST FRIDAY SEMINAR

"Illuminating the Role of Angiotensin Receptor-Containing Neural Circuits in Neuroendocrine and Cardiovascular Control"

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Dr. de Kloet's research program focuses on elucidating mechanisms underlying cardiometabolic disorders. A particular emphasis is placed on the interactions among neural circuits that regulate energy balance with those that control blood pressure, and also on the impact that the renin-angiotensin system has on these circuits. Some specific research topics currently being explored include: (1) determining the role of angiotensin-II and related peptides in the neuroendocrine regulation of energy balance; (2) targeting angiotensin-sensitive neurons of the nodose ganglion to combat obesity and hypertension; (3) understanding mechanisms by which angiotensin-sensitive neurons of the median preoptic nucleus coordinate physiological and pathophysiological responses to hypertensive stimuli. In order to explore these and other research topics, the de Kloet lab uses a mutli-level approach that spans the use of several molecular, genetic, physiological and behavioral techniques in mice. Some examples of the approaches used in her laboratory are: telemetry and indirect calorimetry, which are used to assess cardiovascular parameters and energy expenditure, respectively; optogenetics, fiber photometry, neuronal tract tracing, mRNA in situ hybridization, and immunohistochemistry, which are used to characterize the structure and function of specific sets of neurons involved in these processes; and genetic recombination and virally-mediated gene transfer techniques, which allow for the manipulation of gene expression in specific cellular phenotypes.

February 5, 2021 12:00 Noon
Zoom Meeting
https://osuchs.zoom.us/j/97675025563?pwd=cGVqNzVnb2tLUzNxS3l6TVNOU2tPZz09
Meeting ID: 976 7502 5563 Passcode: 967982

SEMINAR IS OPEN TO THE PUBLIC
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