

# Department of Anatomy & Cell Biology Seminar Series

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## Regulation of vasopressin neuron activity in health and disease

We are interested in understanding integrative mechanisms by which the brain regulates basic functions of the body, such as hunger, thirst, and hormonal levels.

The area of the brain involved in this control is the hypothalamus, which coordinates the neuroendocrine system, cardiovascular system, energy metabolism, fluid homeostasis, and sleep. We are interested in hypothalamic areas harboring neurons secreting vasopressin (aka anti-diuretic hormone). These neurons play a key role in plasma sodium detection and stabilize the levels of sodium and water in the circulation. Abnormal activity of these neurons contributes to disorders associated with fluid balance such as salt-dependent hypertension. We investigate the role of unique neuronal cytoskeletal structures and neighbouring glia cells in the regulation of vasopressin neuron activity. We also study how these elements are affected by high dietary salt, mediating hyperactivation of vasopressin neurons, and thereby contributing to hypertension.



**Wednesday, Feb. 15, 2023**  
**11:30am - 12:30pm**



Room 1/12 - Strathcona  
Anatomy and Dentistry  
Building

Hosted by: Mike Strauss, PhD



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