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Na^+ Sensing and Blood Pressure Regulation by Nesfatin-1 Neurons and Underlying Mechanism

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Summary

In this study, I asked whether the neurons in the hypothalamic paraventricular nucleus (PVN) sense Na^+ to regulate blood pressure. I found that 30% of PVN neurons sense as small as 5 mM change of Na^+, and that 40% of theseNa^+-sensing neurons are Nesfatin-1-immunoreactive neurons. The neurons principallysensethe change of Na^+ itself but additionally thatof osmolality. The Na^+-sensing neurons also respond to angiotensin 2, suggesting their role in regulation of blood pressure.