



**Supplementary Fig. 1.** Distribution of the PVN neurons projecting to RVLM and IML. (A) Note that the neurons of both groups were found intermingled in the dorsal and ventral subdivisions of the PVN. A illustrates the location of neurons recorded from the slices of the anterior (left) to the posterior part of the PVN (right). (B) The bar graph summarizes the proportions of PVN<sub>RVLM</sub> and PVN<sub>IML</sub> neurons in the dorsal and ventral subdivisions. (C) Representative photographs showing sites of the FluoSphere injection, at a section (bregma –12 mm) including the RVLM (top) and the intermediolateral horn (IML) of spinal cord (T2; bottom). Scale bars = 1 mm. PVN, paraventricular nucleus; RVLM, rostral ventrolateral medulla; IML, intermediolateral horn of the spinal cord; 3V, the third ventricle; PM, posterior magnocellular; 4V, the forth ventricle; Amb, the nucleus ambiguous.