

Figure S1. VAN-specific GHSR knockdown does not affect appetitive learning and memory for palatable food, related to Figure 4A and B. In a novel spatial foraging task (A), there were no group differences in learning, as measured by latency to correct hole (B) and errors before correct hole during training (C). There were also no group differences in memory, as measured by the correct + adjacent holes investigated / total holes investigated during a 2 min memory probe, in which the dashed gray line indicates chance performance (D). In the conditioned place preference task for high fat diet (E), results showed no differences between VAN-specific GHSR knockdown and controls in preference for food-paired context (time spent in context, shift from baseline) (F). All data presented as mean +/- SEM.

Effect of vagotomy on food intake
corrected for body weight

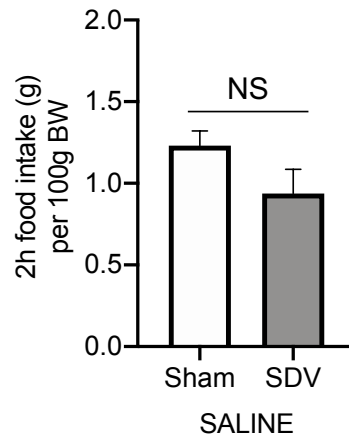
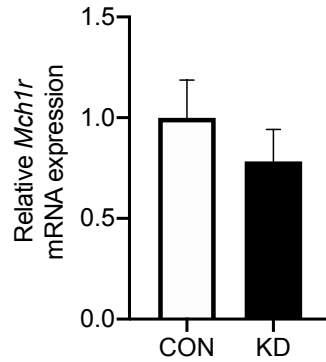


Figure S2. Vagotomized and sham control 2h food intake does not differ after a saline vehicle injection when adjusted for body weight, related to Figure 1E There is no difference between 2h dark cycle food intake after saline injection (control) between sham and vagotomized animals when corrected for body weight (A). Data presented as mean +/- SEM.

A

Effect of GHSR knockdown
on *Mch1r* expression
in the rat nodose ganglion

**B**

Effect of GHSR knockdown
on *Cb1r* expression
in the rat nodose ganglion

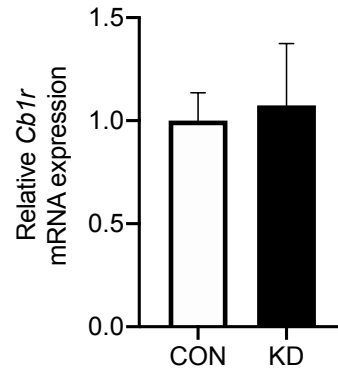


Figure S3. VAN-specific GHSR knockdown does not influence expression of melanin-concentrating hormone or cannabinoid receptor 1 mRNA in the nodose ganglion, related to Figure 1H. VAN-specific GHSR knockdown does not affect expression of *Mch1r* (A) or *Cb1r* (B). All data presented as mean \pm SEM.