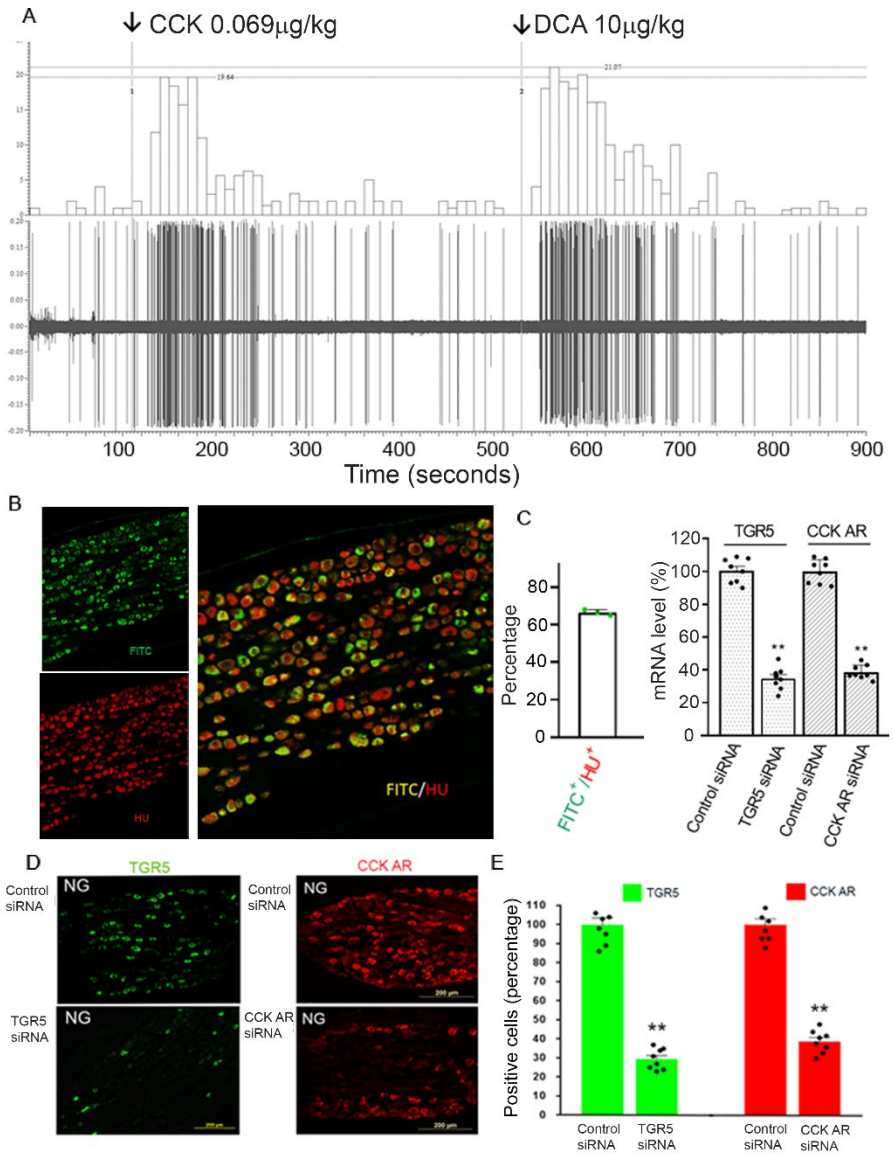
SUPPLEMENTAL DATA

Supplemental Table 1.

Table 1 Information on antibodies used in this study

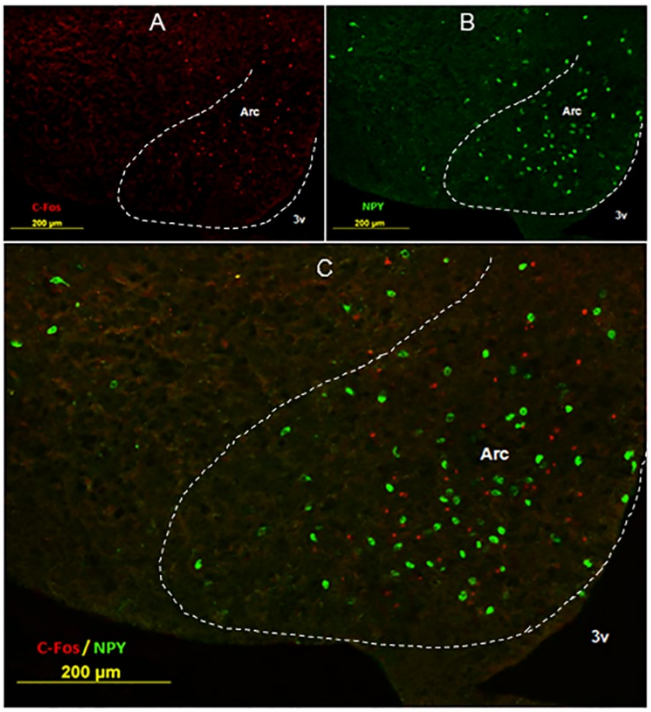
Primary antibodies	Host and clone	Species 24 Specificity	Dilution	Catalog #	Sources
Glutamate	mouse monoclonal	rat	1:200	MAB5304	Milipore, Burlington, MA
TGR5	rabbit polyclonal	mouse, rat, human	1:200	ab72608	Abcam , Cambridge, MA
CCK-1 receptor	goat polyclonal	rat, human	1:200	Ab77269	Abcam , Cambridge, MA
POMC	rabbit polyclonal (FL-267)	rat, mouse, human	1:200	sc-20148	Santa Cruz Biotechnology, Dallas, TX
CART	goat polyclonal	rat, mouse, human	1:200	AF-163	R&D System, Minneapolis, MN
CRF	rabbit polyclonal	mouse , rat	1:200	20084	Immunostar, Hudson WI
c-Fos	mouse monoclonal (E-8)	rat, mouse, human	1:200	sc-166940	Santa Cruz Biotechnology, Dallas, TX
Hu C/D	mouse monoclonal(16A11)	rat, mouse, human	1:200	A-21271	Thermo Fisher Scientific, Waltham, MA
NPY	guinea pig	rat, mouse, human	1:200	PA1-27980	Thermo Fisher Scientific, Waltham, MA

Secondary antibodies	Host and clone	Species Specificity	Dilution	Catalog #	Sources
Donkey anti-mouse IgG	Donkey, Alexa Fluor 488 or 594	mouse	1:200	A-21202 A32744	Thermo Fisher Scientific, Waltham, MA
Donkey anti-rabbit IgG	Donkey, Alexa Fluor 488 or 594	rabbit	1:200	A32790 A32754	Thermo Fisher Scientific, Waltham, MA
Donkey anti-goat IgG	Donkey, Alexa Fluor 488 or 594	goat	1:200	A-11055 A-11058	Thermo Fisher Scientific, Waltham, MA
Donkey anti-Guinea pig	Donkey, Alexa Fluor 488	Guinea pig	1:200	SAB4600298	Thermo Fisher Scientific, Waltham, MA



Supplemental Figure 1. NG Recordings in Response to DCA and CCK-8 stimulation.

A. Same units recording of vagal afferent neurons in rat nodose ganglia showing the same unit responded to both CCK-8 and DCA administrated via superior mesenteric artery (20 neurons from 4 rats were recorded). B. FITC-conjugated control siRNA colocalized with neuronal marker Hu C/D. Summarized data is shown in C (left panel). C (right panel), qPCR of TGR5 and CCK A receptor in NG 7 days after control or specific siRNA. D. Immunofluorescence staining of TGR5 (left panels) and CCK-AR (right panels) in nodose ganglia neurons after control or specific siRNA. (**E)** Bar graphs showing TGR5 and CCK-AR were knocked down by 71±6 and 61±5% with specific siRNAs in NG, respectively (**p<0.01, n=8). Unpaired Student *t* test.



Supplemental Figure 2. Immunofluorescence Staining of NPY in the arcuate nucleus.

Double immunofluorescence of C-Fos and NPY in the arcuate nucleus following intravenous administration of DCA. No colocalization between c-Fos and NPY was observed indicating that NPY neurons were not activated by DCA. 3 sections were stained per rat and totally 3 rats were used. A. C-fos staining. B. NPY staining. C. Merged image. Arc, arcuate nucleus; 3v, third ventricle.

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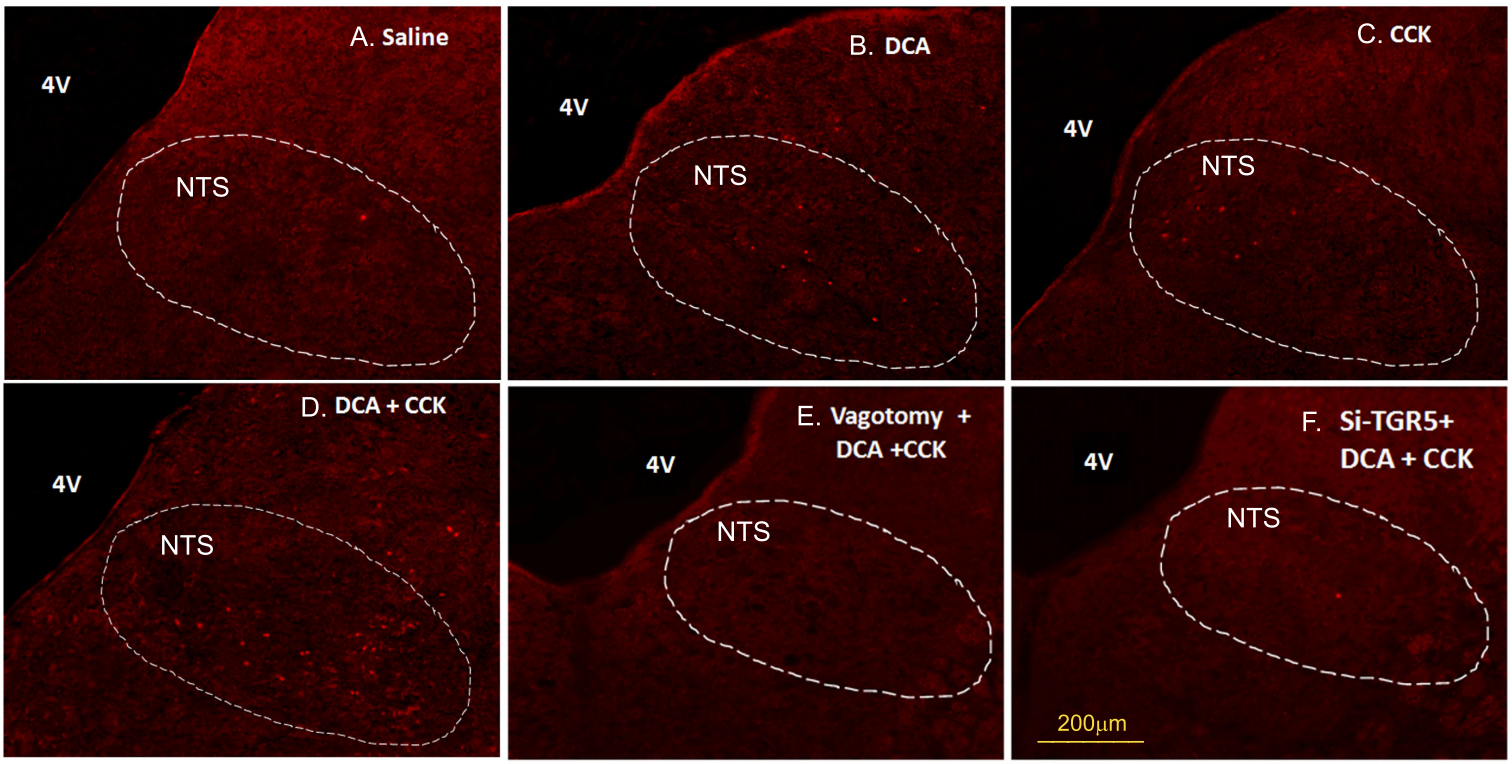
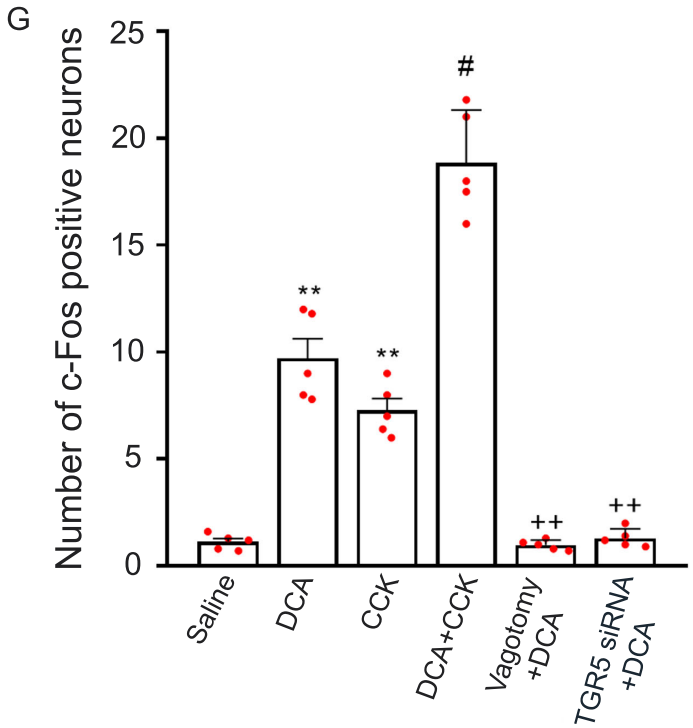

A. Saline
4V
NTS
B. DCA
4V
NTS
C. CCK
4V
NTS
D. DCA + CCK
4V
NTS
E. Vagotomy + DCA +CCK
4V
NTS
F. Si-TGR5+ DCA + CCK
4V
NTS
200μm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Number of c-Fos positive neurons
25
20
15
10
5
0
**
**
#
++
++
Saline
DCA
CCK
DCA+CCK
Vagotomy +DCA
TGR5 siRNA +DCA