

Supplemental Table 1 Brain regions infected by the polysynaptic tracing virus

– Related to Figures 5 and 7

Figure 5E. Stomach:: AAV2-retro-hSyn.HI.eGFP-Cre/DRG:: H129 CAG-LSL-TK-tdTomato		
Day2	Left DRG (Dorsal Root Ganglia):T6-T9 Right DRG:T7-T9	
Day3	Spinal T6-T9 lamina X	
Day4	NTS (Nucleus of the Solitary Tract) DMV (Dorsal Motor nucleus of the Vagus) LRN (Lateral Reticular Nucleus) GiV (Gigantocellular reticular nucleus, Ventral part) PMn (Paramedian reticular nucleus)	
Day5	SubC (Subcoeruleus nucleus) PCRtA (Parvicellular Reticular nucleus, α part) MV (Medium Vestublar) rVRG (rostral Ventral Respiratory Group)	
Day6	LH (Lateral Hypothalamus) PVH (Paraventricular nucleus of Hypothalamus) PSTn (Parasubthalamic nucleus of Hypothalamus) Lat (Lateral/dentate cerebellar nucleus) Mo5 (Trigeminal motor nucleus)	
Day7	S1HL (Somatosensory Cortex of the Hindlimb) Sim (Cerebellar Simple lobule)	
Figure 5F. Arm:: H129 CMV-EGFP /nNOS-Cre-Stomach:: H129 CAG-LSL-TK-tdTomato /VGx		
Day3	LRN MdV (Medullary reticular formation Ventral part) GiV PMn	DMV LRN MdV PMn
Day4	IRt (Intermediate Reticular nucleus) PCRtA Gi (Gigantocellular reticular nucleus)	SubC PCRtA rVRG
Day5	SpVe (Spinal vestibular nucleus) Int (Interposed Cerebellar nucleus) RtTg (Reticulotegmental nucleus of the pons)	PSTn Mo5 Lat
Figure S5K. Stomach:: AAV2-retro-hSyn.HI.eGFP-Cre /NG::H129 CAG-LSL-TK-tdTomato		
Day3	NTS AP DMV LRN	
Day4	PBN PVH PSTn	

Figure S5L. Ileum::AAV2-retro-hSyn.HI.eGFP-Cre /NG:: H129 CAG-LSL-TK-tdTomato	
Day3	NTS LRN
Figure S5M. NOS1 ^{Cre} -Stomach:: H129 CAG-LSL-TK-tdTomato	
Day2	Left DRG:T6-T9 Right DRG:T7-T9 Left NG (Nodose Ganglia) Right NG
Day3	NTS AP DMV LRN GiV PMn
Day4	SubC PBN PCRtA rVRG MV
Day5	PSTn Mo5 Lat CeA PVH LH
Figure S5N. Glp1r-ires-Cre-Ileum:: H129 CAG-LSL-TK-tdTomato	
Day2	Left DRG:L1-L2 Right DRG:L2 Left NG Right NG
Day3	Spinal L1-L2 lamina X LRN NTS
Day4	PMn DMV SubC
Day5	PSTn
Figure S5O. Ileum:: H129 CMV-EGFP / VGx	
Day3	LRN
Day4	DMV

Figure 7A and S7E. Vglut2-ires-Cre-PSTn:: PRV CAG-DIO-TK--GFP Ba-2017

Day2	S1J (Primary somatosensory cortex, Jaw area) AIC (Agranular Insular Cortex) M2 (secondary Motor) ACC (Anterior Cingulate Cortices) IC (Insular Cortex) CeA (Central nucleus of the Amygdala) BnST (Bed nucleus of the Stria Terminalis) PBN PVH
Day3	NTS Sp5 (Spinal Trigeminal nucleus) SC (Superior Colliculus) DR (Dorsal Raphe) SNc (Substantia Nigra pars compacta) VTA (Ventral Tegmental Area) LC (Locus Coeruleus) PCRtA
Day4	LRN DMV Spinal T5-L3 lamina X Bar (Barrington's nucleus) TG (Trigeminal Ganglia) GG (Geniculate Ganglia) NG (Nodose Ganglia)
Day5	DRG: T5-L3 Taste buds
Day6	Stomach Ileum
Day7	CG (Celiac Ganglia)

Figure 7Z. B6 Masseter/Digastric/Glossus/Parotid::PRV-CMV-EGFP Ba-152

	Massater	Digastric	Glossus	Parotid
Day2	Mo5	Mo5	12N (Hypoglossal nucleus)	IS (Inferior Salivatory nucleus)
Day3	Su5 (Supratrigeminal nucleus) PCRt IRt Gi Sp5 LC SubC PBN	Su5 PCRt PBN Sp5 Gi	DMV Gi IRt PCRt PBN LC SubC	SuS (Superior salivatory nucleus) NTS Sp5 Gi DMV IRt PCRt PBN LC SubC
Day4	CeA PSTn LH PVH DM (Dorsomedial hypothalamic nucleus)	CeA PSTn LH PAG PVH	PSTn LH PVH	PAG CeA PSTn PVH