

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Primary neurons show rapid and reversible calcium influx in response to each ultrasound pulse (0.20 MPa, 5 pulses) in the presence of PGVs (0.8 nM).

File Name: Supplementary Movie 2

Description: Ultrasound stimulation (0.40 MPa) triggers left forelimb movements of the PGV⁺ mouse (left), but not in Collapsed PGV (CPGV)-injected mouse (middle), and Saline⁺ mouse (right).

File Name: Supplementary Movie 3

Description: Ultrasound stimulation of the dorsal striatum (0.56 MPa) evokes anti-clockwise rotation of the PGV⁺ mouse (left), but not the Saline⁺ mouse (right). Movie speed is 3 × accelerated, PGV/Saline injection location is marked within the movie frames.

File Name: Supplementary Movie 4

Description: Ultrasound stimulation of the deep striatum (0.56 MPa) causes freezing of the PGV⁺ mouse (left), but not the Saline⁺ mouse (right). Movie speed is 3 × accelerated, PGV/Saline injection location is marked within the movie frames.

File Name: Supplementary Movie 5

Description: Ultrasound stimulation of dorsal raphe nucleus (0.25 MPa) improves the struggling time of the tail suspension test of the PGV⁺ mouse (left), but not the Saline⁺ mouse (right). Movie speed is 3 × accelerated.

File Name: Supplementary Movie 6

Description: Ultrasound stimulation of dorsal raphe nucleus (0.25 MPa) decreases the immobility time of the forced swimming test of the PGV⁺ mouse (left), but not the Saline⁺ mouse (right). Movie speed is 3 × accelerated.