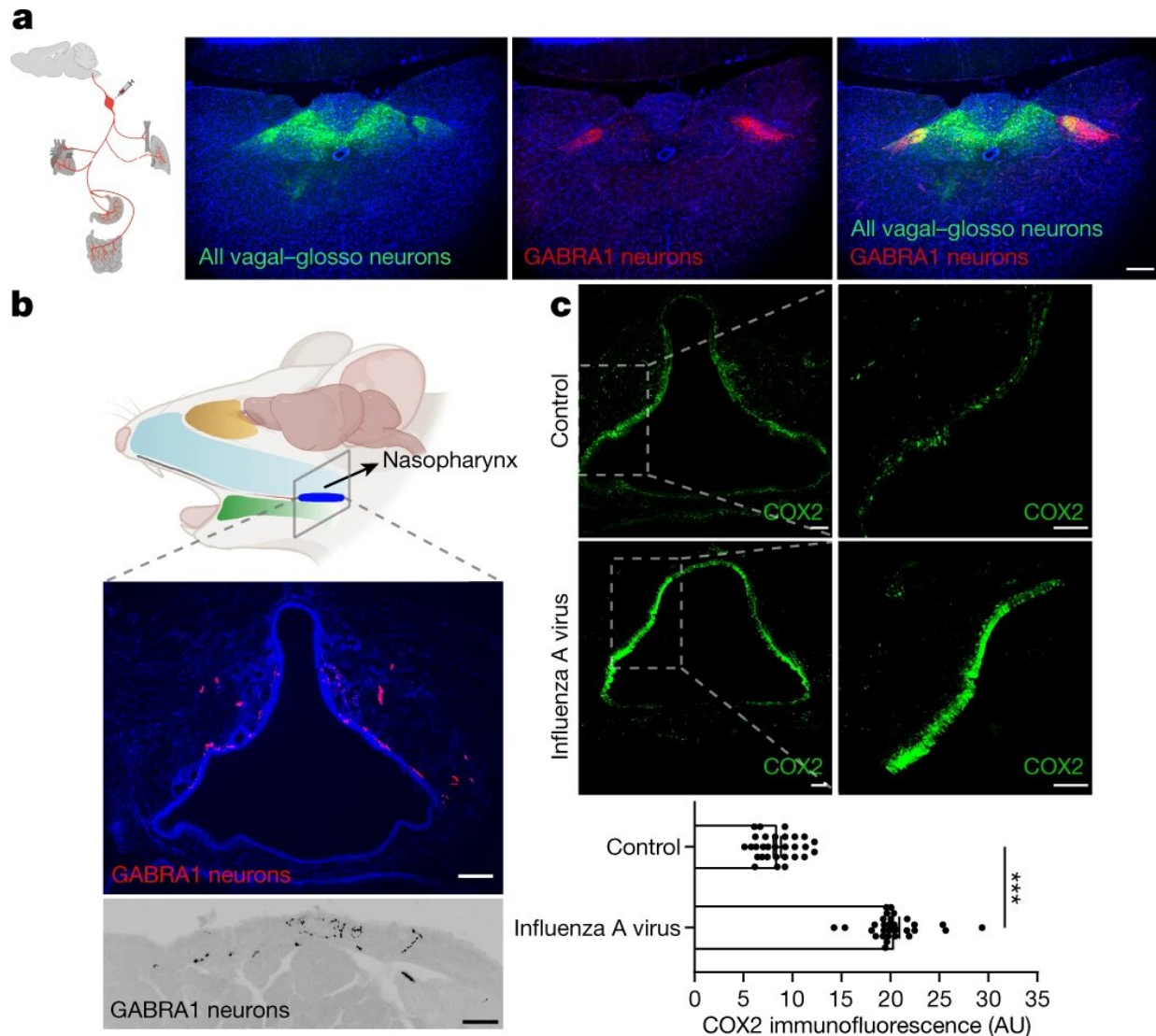


# Exploring how the brain senses infection

March 8 2023



GABRA1 neurons provide an airway–brain communication route. **a**, NTP ganglia of *Gabra1-IRES-cre* mice were injected bilaterally with Cre-independent AAV-GFP and Cre-dependent AAV-flex-tdTomato, and fluorescent axons were visualized (green: all NTP sensory axons; red: GABRA1 NTP axons) by

immunohistochemistry for tdTomato and GFP in fixed coronal cryosections of mouse brainstem. Scale bar, 200  $\mu\text{m}$ . **b**, NJP ganglia of *Gabra1-IRES-cre* mice were injected bilaterally with AAV-flex-tdTomato, and axons were visualized by immunostaining for tdTomato in fixed coronal cryosections of nasopharynx. Scale bars, 100  $\mu\text{m}$  (top), 50  $\mu\text{m}$  (bottom). **c**, Top, immunohistochemistry of COX2 in fixed cryosections of nasopharynx in uninfected mice (control) or mice infected for five days with influenza A virus. Scale bars, 100  $\mu\text{m}$ . Bottom, quantification of COX2 immunofluorescence in the nasopharynx of indicated mice. Data are mean  $\pm$  s.e.m.;  $n = 29$  sections from 5 mice per group over 3 independent experiments. Two-tailed unpaired  $t$ -test,  $P$

Citation: Exploring how the brain senses infection (2023, March 8) retrieved 13 May 2024 from <https://medicalxpress.com/news/2023-03-exploring-brain-infection.html>

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