Supporting Information

Bhattacharya *et al*. 10.1073/pnas.0810801105

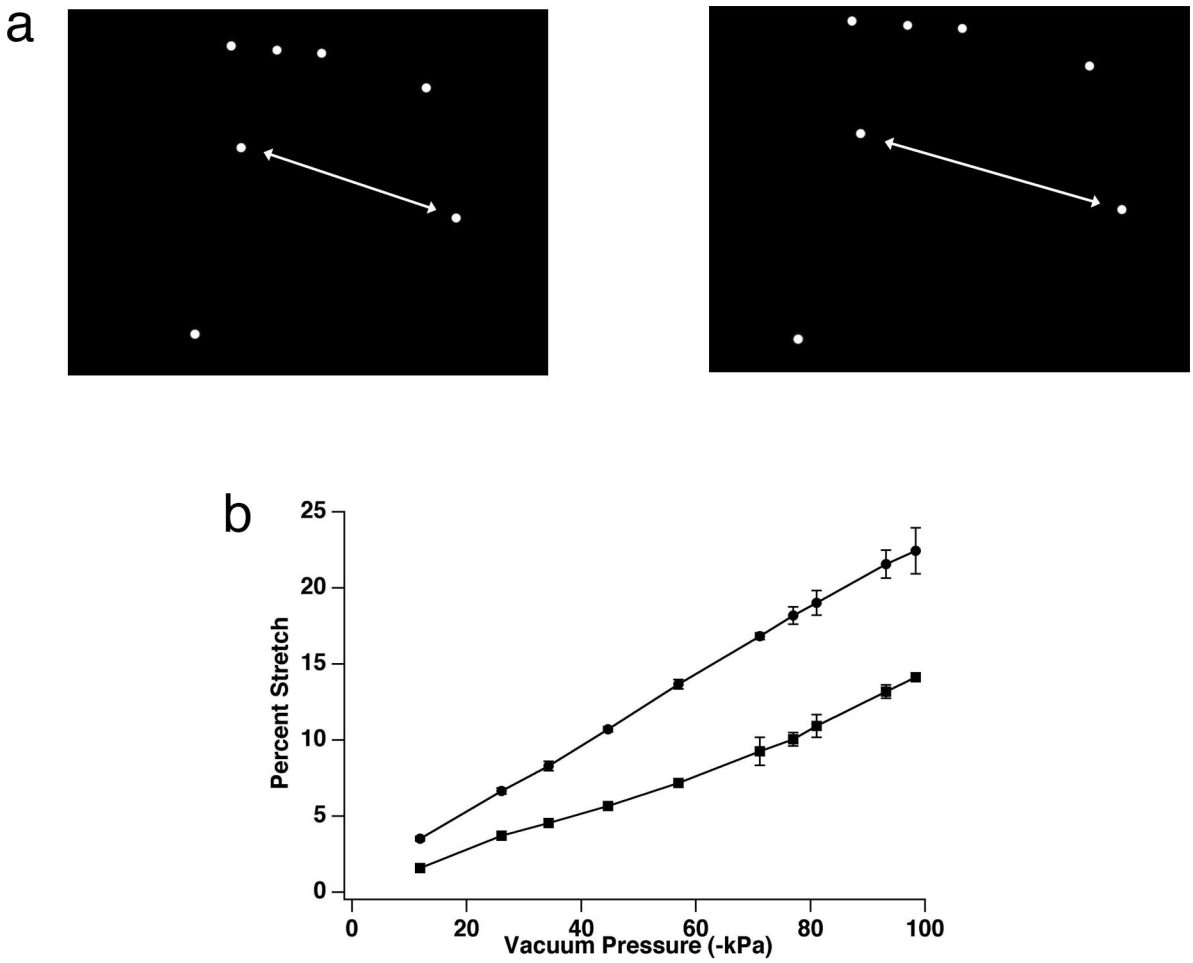


Fig. S1. Calibration of the radial stretch system. (*a*) Successive images of beads before (*Left*) and during (*Right*) a static 18% stretch. Arrow highlights a distance change between two beads. (*b*) Calibration curves calculated from beads stretched on membranes of 0.01 inch (squares) or 0.02 inch (circles) thickness. Error bars are SEM. Each point represents combined data from at least 10 bead pairs for each point.

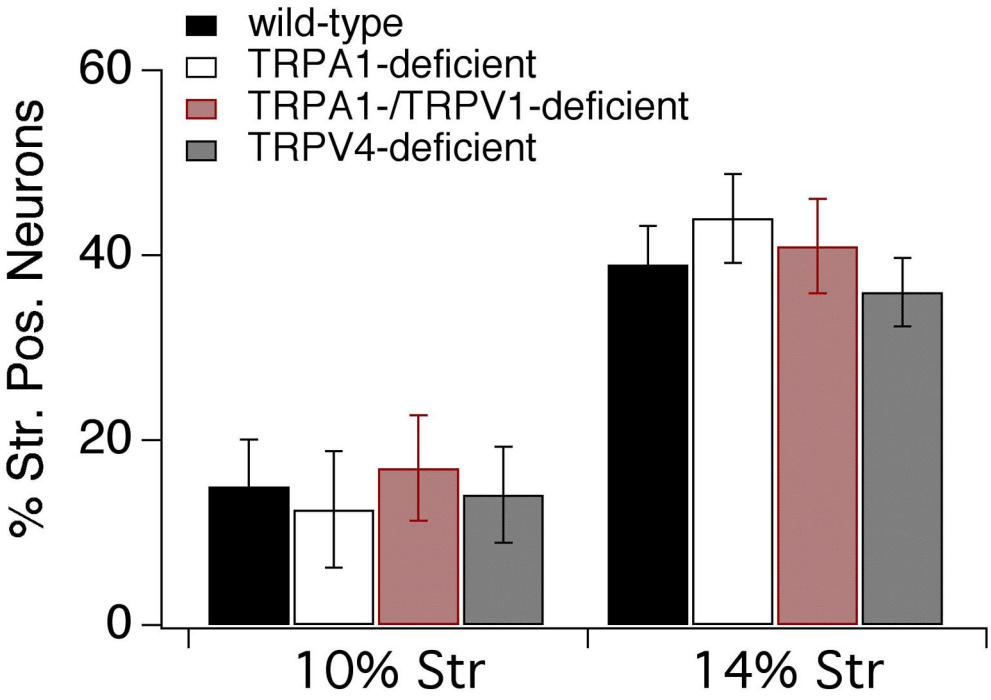
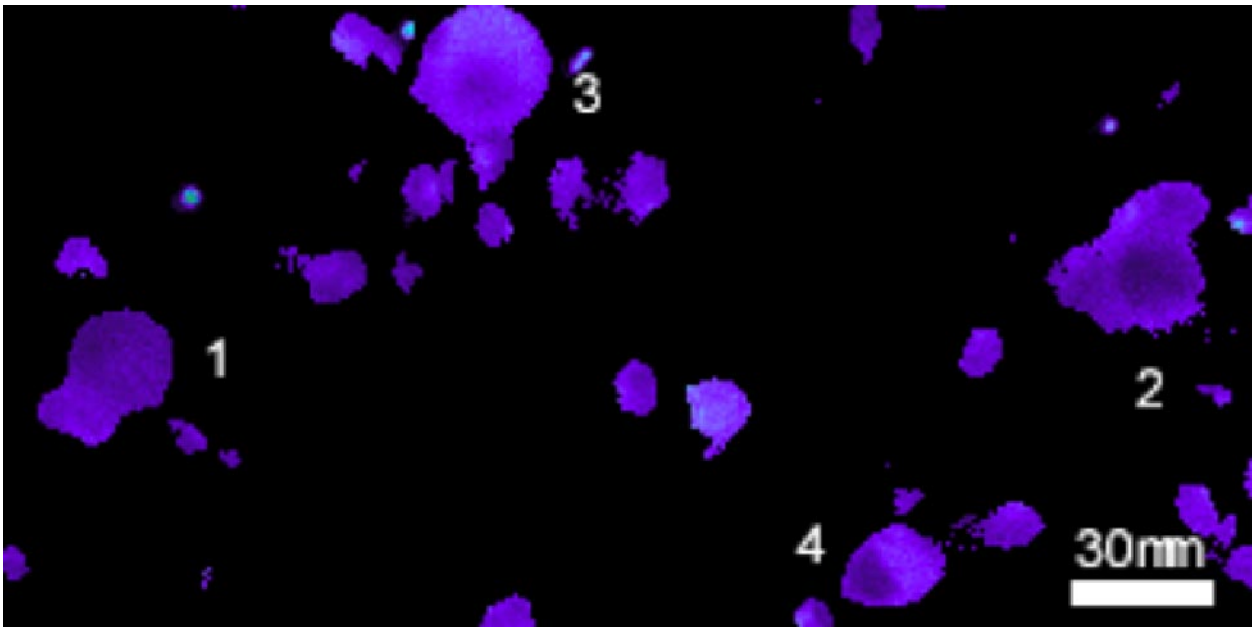
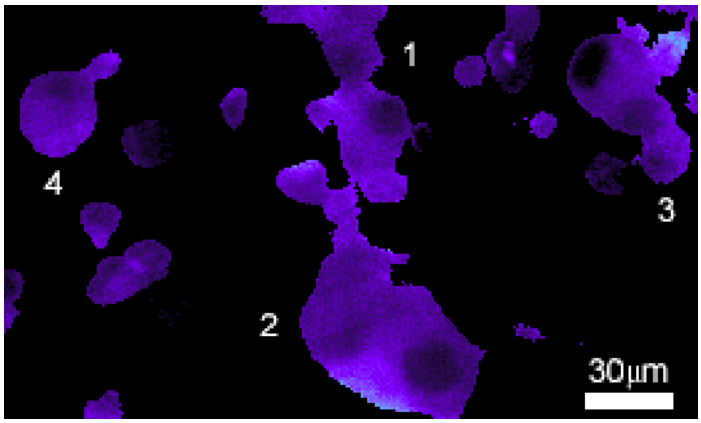


Fig. S2. Stretch-evoked responses do not require TRPA1, TRPV1 or TRPV4 channels. Trigeminal neurons from wild type (black bars), TRPA1-deficient (red bars), TRPV4-deficient (white bars) or TRPV1/TRPA1-deficient (gray bars) mice were examined for responses to 10 or 14% stretch. No significant differences were observed with genotype (one-way ANOVA; $n \geq 59$ cells from three independent animals per genotype).



Movie S1. Time-lapse pseudocolor movie (12× live speed) showing two successive 14% stretches. Neurons 1 and 2 respond robustly and reproducibly to both stretches, while neurons 3 and 4 do not respond to stretch.

Movie S1 (MOV)



Movie S2. Time-lapse pseudocolor movie (12× live speed) showing stretch-evoked calcium transients in neurons responding to stretch stimuli of increasing magnitude (10, 12, 14, and 16% stretch). Neuron 1 shows responses to all stretches, with peak calcium increasing with stimulus magnitude. Neurons 2 and 3 respond to stretch only at 16%. Neuron 4 does not respond to stretch.

Movie S2 (MOV)