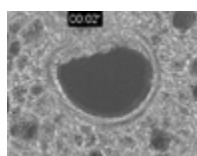
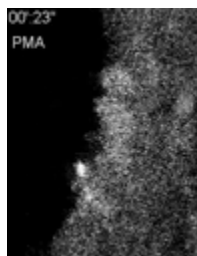


Mukherjee et al., <http://www.jgp.org/cgi/content/full/jgp.201210876/DC1>



**Video 1.** Contractile response of a small airway in a mouse lung slice induced by stimulation with 5-HT, KCl, and PMA. This time-lapse video shows the responses of small airway to stimulation with 1  $\mu$ M 5-HT, 50 mM KCl, and 10  $\mu$ M PMA, as shown in the experiment illustrated in Fig. 1. Strong and sustained airway contraction was induced by superfusion of lung slices with 5-HT (present only when label is present). The airway relaxed after 5-HT withdrawal and washout of the lung slice with sHBSS. In contrast, both KCl and PMA induced transient and unsynchronized contractions of SMCs in the airway lumen wall (SMC twitching) and a small reduction in total luminal area. Experimental time is indicated (top label) in the format hours:minutes.



**Video 2.**  $\text{Ca}^{2+}$  signaling in small airway SMCs induced by 10  $\mu$ M PMA. This video demonstrates the  $\text{Ca}^{2+}$  signaling induced by 10  $\mu$ M PMA in the SMCs of small airways as illustrated in Fig. 2. The SMCs responded with  $\text{Ca}^{2+}$  oscillations (labels) occurring at low frequency.  $\text{Ca}^{2+}$  oscillations are observed as  $\text{Ca}^{2+}$  waves propagating along single SMCs and are asynchronous with respect to neighboring SMCs. The  $\text{Ca}^{2+}$  oscillations in single SMCs are synchronized with transient airway SMC contractions. Experimental time (format minutes:seconds) and addition of PMA are indicated by labels.