

Supplemental Material:

Supplemental Video 1. U46619-induced vasoconstriction and subsequent vasodilation mediated by increased extracellular $[K^+]_o$. Starting from a dilated state (baseline), exposure to the TXA₂ receptor agonist U46619 causes vasoconstriction, and the arteriole's diameter achieves a new steady-state. In the continuous presence of U46619, elevation of $[K^+]_o$ (10 mM) produces marked vasodilation.

Supplemental Video 2A. *t*-ACPD-induced a biphasic response (brief constriction followed by dilation) in an arteriole displaying a low resting tone.

Supplemental Video 2B. *t*-ACPD-induced dilation in an arteriole presenting a high resting tone.

Supplemental Video 3. 11,12-EET-induced calcium transients in cortical astrocytes. Representative movie showing the response of cortical astrocytes to local application (via picospritzer) of 11,12 EETs (1 μ M).