

Supplementary information

Supplementary Figure 1 (related to Figure 1D). Original/uncropped blots of lysates from untransduced, Ad. β Gal- or Ad.MCU-transduced (all static) ECs against MCU, MICU2, and β -actin (15 μ g total protein per lane).

Supplementary Video 1 (related to Figure 1C). Video (titled SS.mp4) of mito-GCaMP6 fluorescence response in (untransduced) ECs exposed to 1 min of static incubation followed by 9 min of SS. The video was captured at 1 frame/s and was saved as MP4 (30 frames/s).

Supplementary Video 2 (related to Figure 1E). Video (titled AdMCU-SS.mp4) of mito-GCaMP6 fluorescence response in Ad.MCU-transduced ECs exposed to 1 min of static incubation followed by 9 min of SS. The video was captured at 1 frame/s and was saved as MP4 (30 frames/s).

Supplementary Code 1 (related to Figures 2 and 5). A MATLAB script CodeS1_AnalysisofTransients.m was developed to import videos, analyze them for average fluorescence intensity, and quantify the number of transients per cell over time along with the cumulative number of transients per cell. The script also includes functions to generate pseudo-3D fluorescent images, 3D topography surfaces of $\log_{10}$ (number of pixels) vs. threshold intensity vs. time, and plot pixels above threshold vs. time, drop persistence, and cumulative distribution functions. The script is provided as a separate supplemental file in pdf format.

Supplementary Figure 1

