

**Characterization of PDGF-induced subcellular calcium regulations through  
calcium channels in airway smooth muscle cells by FRET biosensors**

Mingxing Ouyang<sup>1,†,\*</sup>, Binqian Zhou<sup>1,2,†</sup>, Jiayue Feng<sup>1</sup>, Qingyu Zhang<sup>1,2</sup>, Chunmei

Li<sup>1,\*</sup>, Linhong Deng<sup>1,\*</sup>

<sup>1</sup>Institute of Biomedical Engineering and Health Sciences, School of Medical and Health Engineering, Changzhou University, Changzhou, 213164 China

<sup>2</sup>School of Pharmacy, Changzhou University, Changzhou, 213164 China

<sup>†</sup>M.O. and B.Z. are co-first authors.

<sup>\*</sup>Corresponding authors.

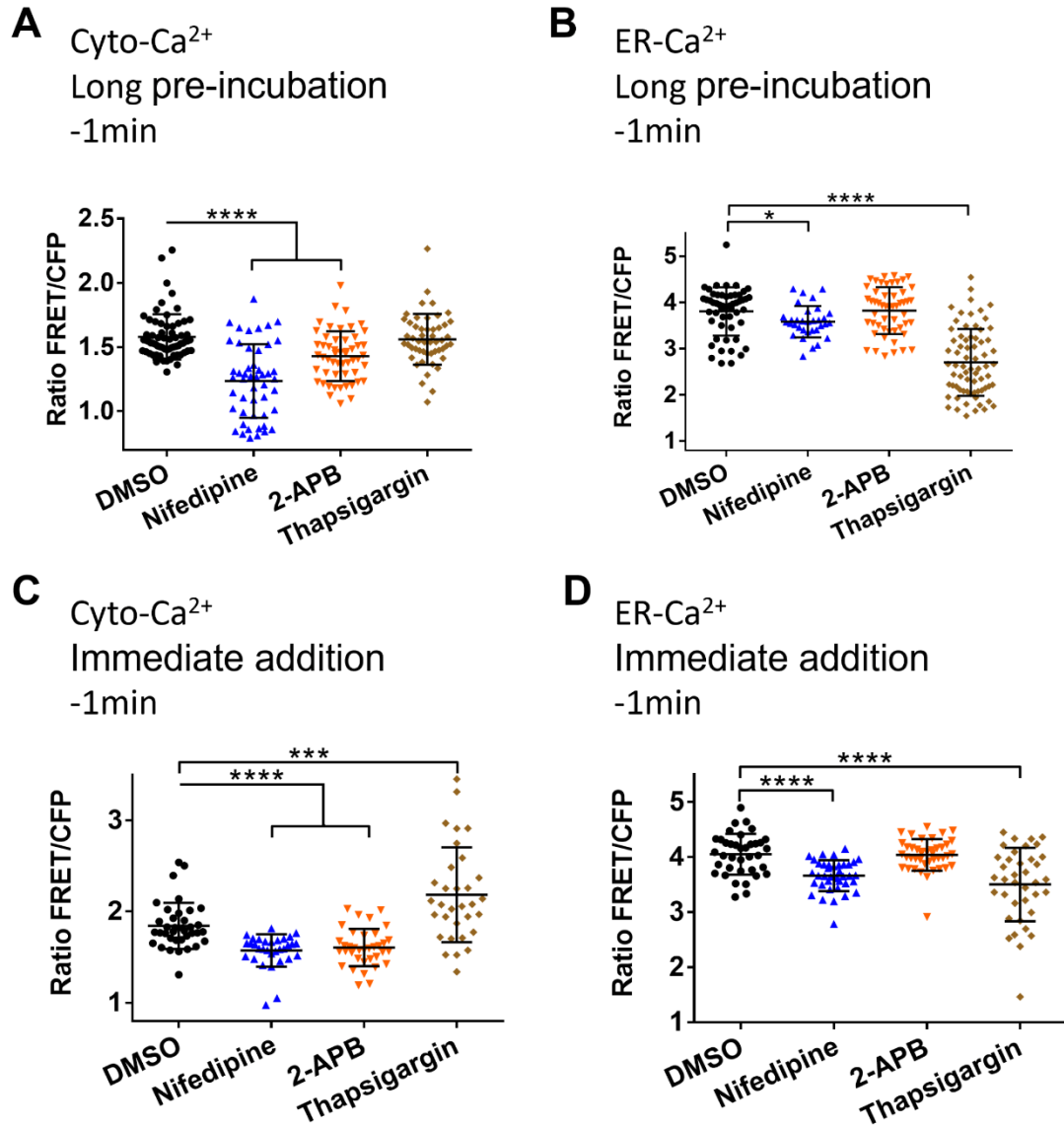
The supporting information contains one figure and three movies.

**Movie legends:**

**Movie S1.** The time-lapse images of cytosolic calcium FRET in ASM cells before and after PDGF stimulation. The interval is 1 min.

**Movie S2.** The time-lapse images of ER calcium FRET in ASM cells before and after PDGF stimulation. The interval is 1 min.

**Movie S3.** The time-lapse images of calcium FRET on the outer mitochondrial membrane in ASM cells before and after PDGF stimulation. The interval is 1 min.



**Figure S1. The basal level comparisons of calcium FRET in cell cytosol or endoplasmic reticulum (ER) after the inhibitors' treatments but before PDGF stimulations. (A, B)** The calcium FRET levels in the cytosol (A) or ER (B) after one hour pre-incubations with DMSO, nifedipine, 2-APB, or thapsigargin. **(C, D)** The calcium FRET levels in the cytosol (C) or ER (D) from immediate addition of DMSO, nifedipine, 2-APB, or thapsigargin before moved to microscopic imaging.