

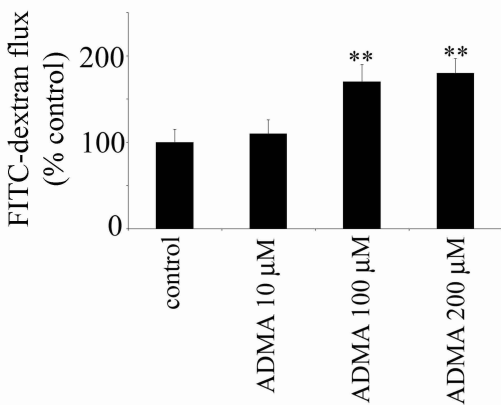
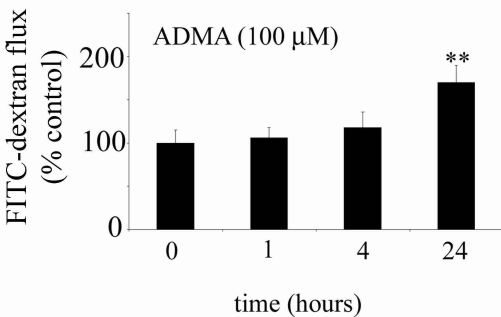
## LEGENDS FOR SUPPLEMENTARY FIGURES

**Supplementary Figure 1.** Permeability changes in response to various doses of ADMA (A). Time-course of permeability changes in response to ADMA (100  $\mu\text{mol/L}$ ) and L-NAME (1mmol/L) are in (B) and (C), respectively. \* $P < 0.05$ , \*\* $P < 0.01$ ,  $n = 5$ .

**Supplementary Figure 2.** Gap junction inhibitor, 18-GA prevents the effects of DDAHI on endothelial permeability in ADMA-treated PAECs. Bar=10 $\mu\text{m}$ . In (A) permeability changes were studied in cells grown on Transwell insert in the presence of ADMA, while a coverslip with DDAHI-overexpressing cells was placed at the bottom of the Transwell dish. In controls, a coverslip with untreated cells was used. (B) shows the effects of 18-GA on dextran flux in control PAECs and PAECs overexpressing DDAHI, with or without ADMA. \* $P < 0.05$ ; \*\* $P < 0.01$ , comparison with untreated controls,  $n = 6$ .

**Supplementary Figure 3.** Changes in nitrite levels in culture medium of untreated PAECs and PAECs overexpressing AdDDAHI, AdDDAHII or AdGFP in the presence or absence of ADMA (100  $\mu\text{mol/L}$ ) (A). In (B) cells were incubated with SDMA (24 hours, 100  $\mu\text{mol/L}$ ), L-NAME (24 hours, 1mmol/L), or SNAP (1 hour, 10  $\mu\text{mol/L}$  or 100  $\mu\text{mol/L}$ ). \* $P < 0.05$ ; \*\* $P < 0.01$ , comparison with untreated controls,  $n = 5$ .

**Supplementary Figure 4.** ADMA metabolism does not affect ROS levels in PAECs. Superoxide dismutase mimetic MnTMPyP has no effect on ADMA-induced changes in actin cytoskeleton (A), distribution of VE-cadherin (B) or endothelial permeability (C) in PAECs. Bar=10 $\mu\text{m}$ . (D) and (E) show changes in fluorescence intensity in cells under various treatments cultured in the presence of Amplex red (D) or DCFH-DA (E). (F) shows dose-dependent increase in Amplex Red fluorescence induced by addition of  $\text{H}_2\text{O}_2$  (0.1-1 $\mu\text{M}$ ) or menadione (10-100 $\mu\text{M}$ ) \* $P < 0.05$ , \*\* $P < 0.01$ , comparison with untreated controls.  $n = 6$ .

**A****B****C**