**Supplemental Figure Legends**

**Supplemental Figure 1:** HLMVECs were grown in varying media conditions followed by exposure to 1.25U/mL of thrombin and time to TERMAX was measured **A**. Time to TERMAX was significantly longer with thrombin exposure alone compared to thrombin exposure with caspase inhibition (qVD) during full media conditions (10% fetal bovine serum). There was no difference in time to TERMAX during basal media conditions (2.5% fetal bovine serum) between thrombin exposure alone and thrombin exposure with caspase inhibition (qVD). N= 5 separate experiments; 8-11 individual wells per condition. **B**. There were no differences in time to TERMAX during basal media or serum-free media conditions (2.5% and 0% fetal bovine serum, respectively) between thrombin exposure alone and thrombin exposure with caspase 3 inhibition (DEVD). **C**. There was no difference in time to TERMAX during basal media conditions (2.5% fetal bovine serum) between thrombin exposure with non-targeting si-RNA (si-Scramble) and thrombin exposure with si-RNA targeting caspase 3 (si-Casp3). N=3-4 separate experiments; 6-14 individual wells per condition.

**Supplemental Figure 2: A**. HLMVECs were exposed to 0.25μM of sphingosine 1 phosphate (S1P) and endothelial barrier integrity was measured. HLMVECs show an increase in trans-endothelial resistance in response to S1P. Caspase inhibition with qVD did not have an effect on TER compared to S1P alone. Summation of all individual wells for each condition are plotted. N=2-4. **B**. HLMVECs were exposed to 1 μM of platelet activating factor (PAF) for 10min and cells were harvested for caspase 3 activity. PAF stimulation did not lead to an increase in caspase 3 activity. N=5-6.