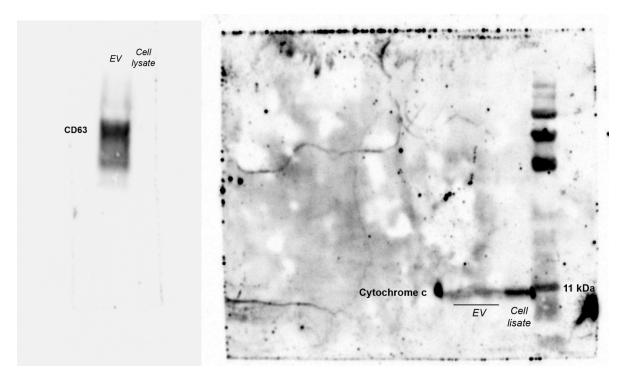
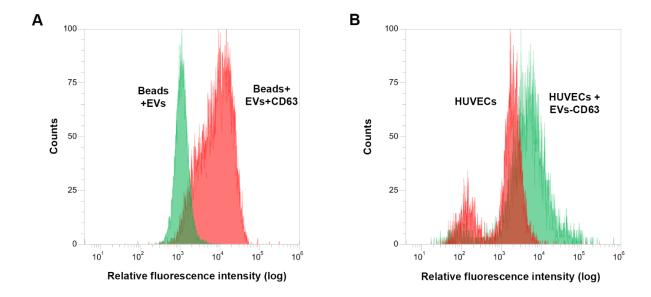
## **Supplementary Information**

Renae Waters<sup>a</sup>, Siddharth Subham<sup>a</sup>, Settimio Pacelli<sup>a</sup>, Saman Modaresi<sup>a</sup>, Aparna R. Chakravarti<sup>a</sup>, Arghya Paul<sup>a\*</sup>

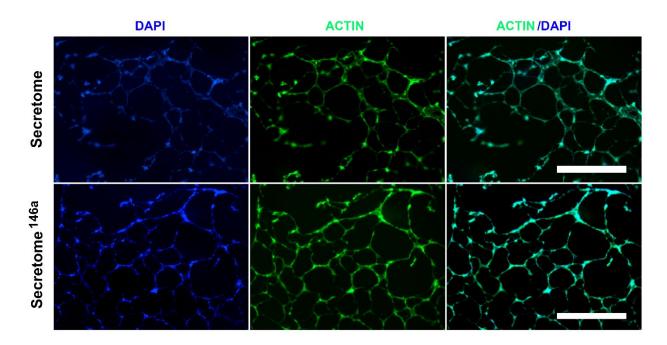
<sup>a</sup>BioIntel Research Laboratory, Department of Chemical and Petroleum Engineering, School of Engineering, University of Kansas, Lawrence, KS, 66045, USA



**Figure S1.** Western blot raw data showing the presence of cytochrome c in the cell lysate and CD63 in EVs.



**Figure S2.** FACs analysis proving the interaction of HUVECs with EVs. A) EVs were conjugated with latex beads and stained with CD63. Beads conjugated with EVs without any staining were used as a control group. B) Flow cytometry analysis of HUVECs showing the successful internalization of EVs stained with CD63. HUVECs without any treatment with EVs served as the control group.



**Figure S3.** Actin DAPI fluorescent images of HUVECs seeded on Matrigel and cultured in media supplemented with secretome and secretome enriched with EVs containing microRNA 146a. Pictures were taken at 4 X. Scale bars = $1000 \mu m$ .

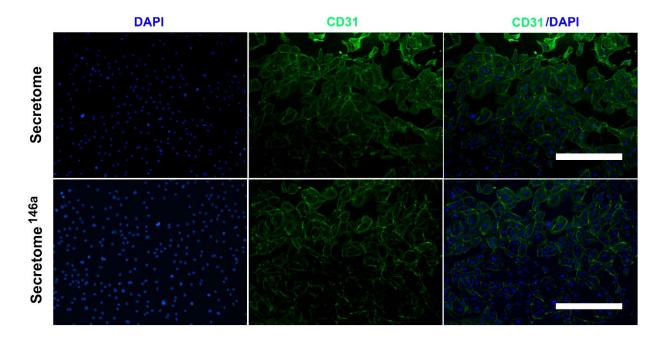


Figure S4. CD31 and DAPI fluorescent images of HUVECs cultured in media supplemented with secretome and secretome enriched with EVs containing microRNA 146a. Pictures were taken at 10X. Scale bars =  $400 \mu m$ .