Supplementary Information

for

Damage to endothelial barriers and its contribution to long COVID

in *Angiogenesis*

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Running head: EC barrier damage in COVID-19

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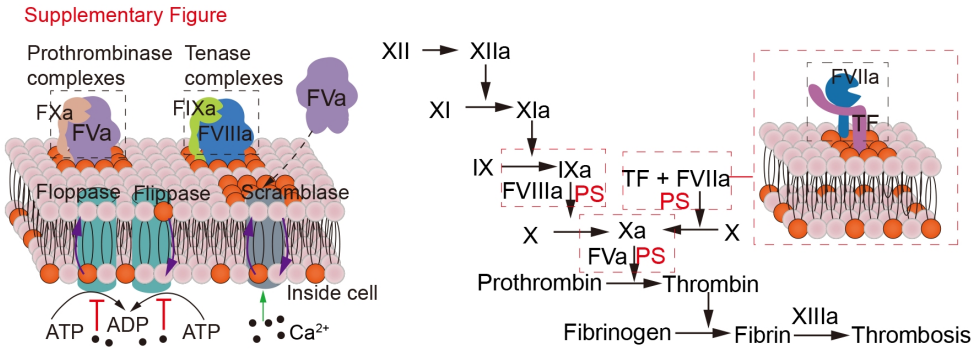

Supplementary Figure Phosphatidylserine (PS) exposure and thrombosis. PS is usually confined to the inner leaflet of the cell membrane. This asymmetry is maintained through ATP-dependent inward transport of PS by flippases and outward transport of non-PS by floppases. Upon stimulation, calcium transients will inhibit ATP-dependent transport and stimulate the nonselective lipid transporter scramblase (ATP-independent), resulting in PS exposure and microparticles release (left). PS exposure provides binding sites for FVa and Xa (or FVIIIa and IXa) to form prothrombinase (or tenase) complexes, promoting thrombin (or Xa) formation (right). Additionally, exposed PS also activates tissue factor on endothelial cells, triggering the extrinsic coagulation pathway (right).