Pro-inflammatory Stimuli

SARS-CoV-2, Influenza, Other viruses, Bacterial superinfection



Inflammasome/Inflammatory cell activation (macrophages + others)



IL-1β + TNFα + thrombin, other mediators



Capillary Loss

Physical



Functional

EC death
Vessel regression

Increased permeability
Vasoconstriction
Thrombosis
Hemorrhage

Contributing Patient Variables

Pre-existing conditions impacting tissue capillary density

Age

Microbiota



Local or Systemic Pathological Effect

Tissue Ischemia
Hypoxia
Organ Failure

Therapeutic Options and Goals

<u>Combinations</u> of pharmacological inhibitors, neutralizing antibodies, and recombinant proteins:



Blockade of capillary loss (Capillary Protection)

to reduce vascular permeability, inhibit capillary regression, and maintain/enhance tissue oxygenation