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Plasma mediators in patients with severe COVID-19 cause lung endothelial barrier failure

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The plasma of COVID-19 patients induces pulmonary microvascular barrier failure, which increases with disease severity. Here, a screening platform to test for plasma mediators and the therapeutic potential of barrier stabilising compounds is reported. <https://bit.ly/3k4C0tB>

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To the Editor:

Approximately 20% of symptomatic patients with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection progress to severe coronavirus disease 2019 (COVID-19) with critical hypoxaemia fulfilling the criteria of acute respiratory distress syndrome (ARDS). Consistent with the classic features of ARDS, severe COVID-19 is characterised by ground glass opacities on computed tomography imaging and diffuse alveolar damage *post mortem* [1], suggesting permeability-type lung oedema as driver of respiratory

failure. Consistent with this concept, autopsy findings show severe lung endothelial injury in patients who succumbed to COVID-19 [2].