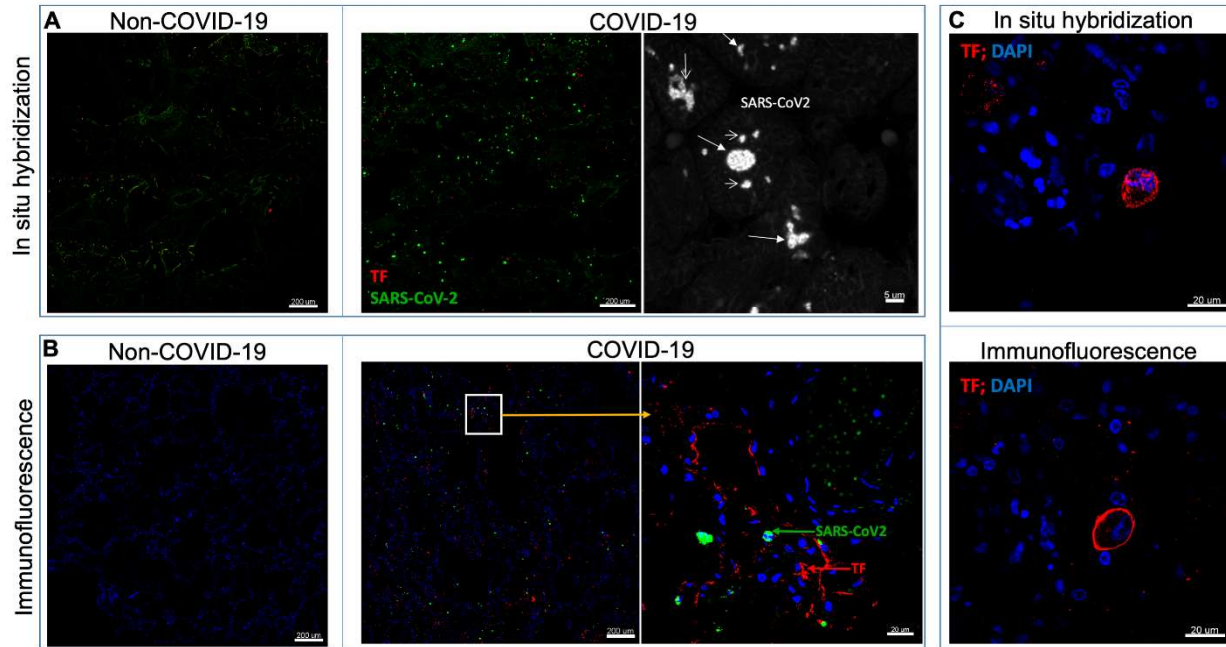


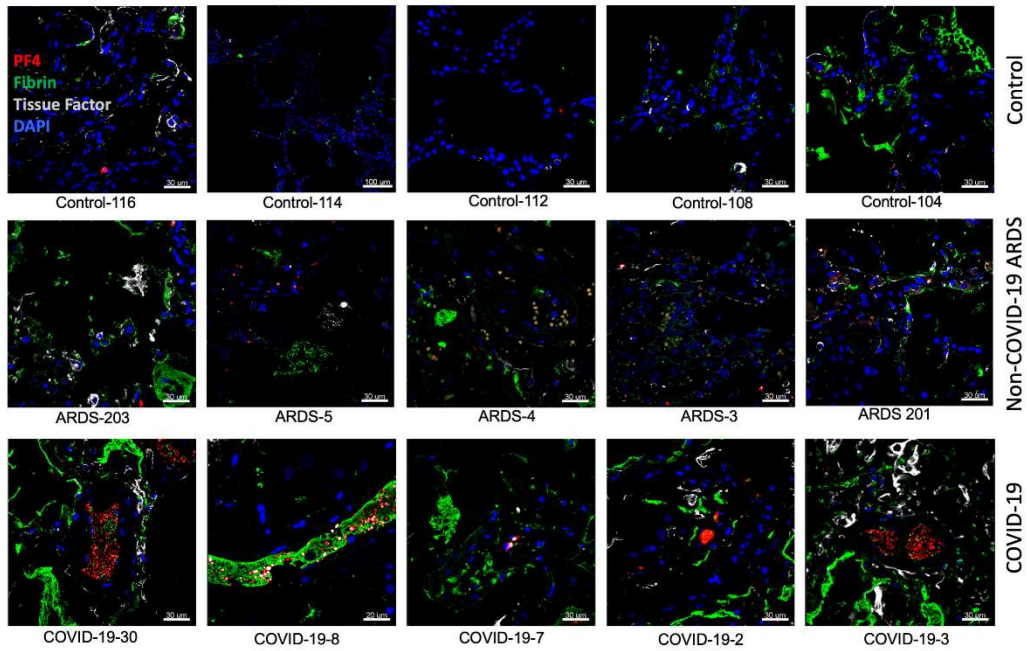
Supplemental Material:

Supplemental Figure S1



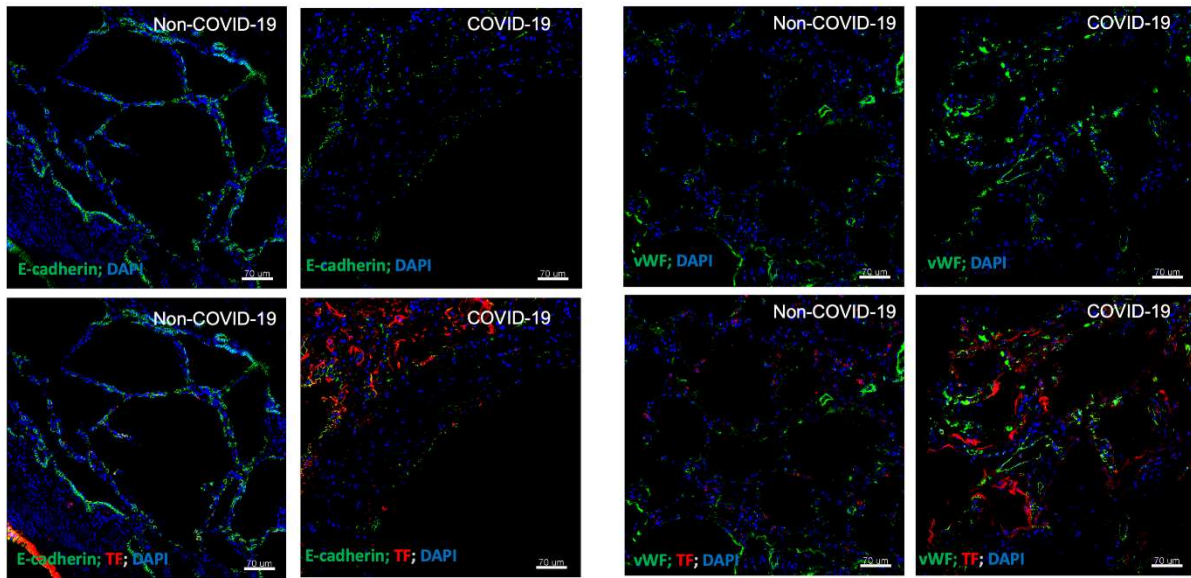
**Supplemental Figure S1:** (A) Dual RNA in situ hybridization detecting SARS-CoV-2 viral RNA (green color dots and high-resolution white pseudo color dots) and TF RNA (red color dots) in non-COVID-19, control and COVID-19-ARDS lungs. No viral RNA was detected in non-COVID-9 control lung. (B) Immunofluorescence staining of SARS-CoV-2 N-protein (green color dots) detect presence of virus and TF (red color) and high-magnification image shows TF expression in cells with nuclei stained with dapi in COVID-19-ARDS. (C) TF RNA probe in situ hybridization detecting TF RNA (mostly in nuclei, upper panel), and immunofluorescence staining with anti-TF antibody (cell surface, bottom panel) in COVID-19-ARDS lung.

Supplemental Figure S2



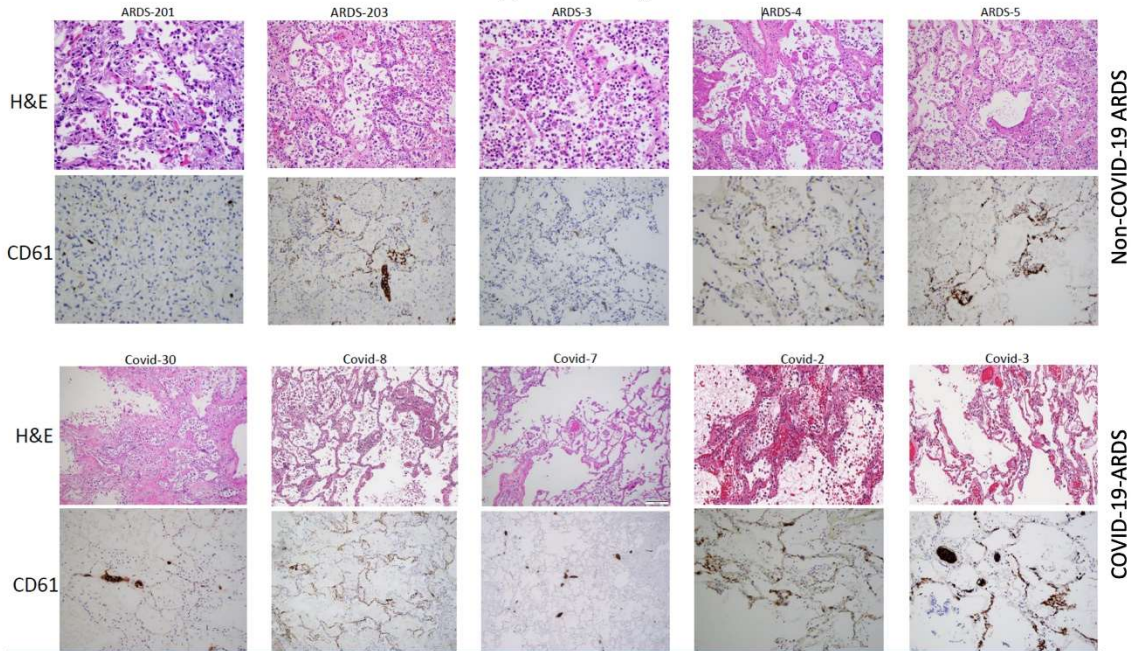
**Supplemental Figure S2:** Immunofluorescent images of lung sections stained with PF4 (red), Fibrin (green) and TF (white) antibodies from five non-ARDS controls, non-COVID-19 ARDS, and COVID-19 cases.

Supplemental Figure S3



**Supplemental Figure S3:** Immunofluorescent images of lungs stained with epithelial cells marker, E-cadherin (green) with TF (red) in control and COVID-19-ARDS (left 4 panels). Right 4 panels show endothelial cells stained with vWf (green) with TF (red) in non-ARDS controls, non-COVID-19 lungs. Nuclei were stained with dapi (blue).

Supplemental Figure S4



**Supplemental Figure S4:** Lung sections of five non-COVID-19 ARDS, and COVID-19-ARDS cases, stained with H&E (upper panels) and immunohistochemistry with CD61 antibody (bottom panels).

**Supplemental Table 1**

Antibody	Vendor	Catalog#	Host
Anti-Human Tissue Factor	R&D Systems, Bio-Techne	AF2339	Goat
Anti-Human Fibrin	Sigma Aldrich	MABS2155	Mouse
Anti-Human Platelet Factor 4	Cell Sciences	PA1142	Rabbit
Anti-SARS-CoV2 Nucleocapsid Protein	Novus Biologicals	NB100-56576	Rabbit

Anti-Human E-Cadherin	Abcam	Ab76055	Mouse
Polyclonal anti-vWf	Agilent Technologies	A008229	Rabbit
Alexa Flour 488 F(ab') <sub>2</sub> Anti Goat IgG (H+L)	Jackson Immuno Research	705-546-147	Donkey
Alexa Flour 594 F(ab') <sub>2</sub> Anti Mouse IgG (H+L)	Jackson Immuno Research	715-586-150	Donkey
Alexa Flour 647 F(ab') <sub>2</sub> Anti Rabbit IgG (H+L)	Jackson Immuno Research	711-607-003	Donkey
Alexa Flour 488 F(ab') <sub>2</sub> Anti Mouse IgG (H+L)	Jackson Immuno Research	715-546-150	Donkey
Alexa Flour 594 F(ab') <sub>2</sub> Anti Rabbit IgG (H+L)	Jackson Immuno Research	711-586-152	Donkey
<b>In Situ Hybridization Probe</b>			
2.5 LS Probe - V-nCoV2019-S	Advanced Cell Diagnostics (ACD)	848568	Design: V-nCoV2019-S, 20zz targeting 21631-23303 of NC_045512.2
2.5 LS Probe - Hs-F3-C2	Advanced Cell Diagnostics (ACD)	407618-C2	coagulation factor III, 20zz targeting 275-1229 of NM_001178096.1