

SUPPLEMENTARY INFORMATION

In-Situ Detection of SARS-CoV-2 in Lungs and Airways of Patients with COVID-19

Inga-Marie Schaefer, M.D.¹, Robert F. Padera, M.D., Ph.D.¹, Isaac H. Solomon, M.D., Ph.D.¹, Sanjat Kanjilal, M.D., M.P.H.^{2,3}, Mark M. Hammer, M.D.⁴, Jason L. Hornick, M.D., Ph.D.¹, and Lynette M. Sholl, M.D.¹

¹Department of Pathology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA

²Division of Infectious Diseases, Brigham & Women's Hospital, Boston, MA, USA

³Department of Population Medicine, Harvard Medical School and Harvard Pilgrim Healthcare Institute, Boston, MA, USA

⁴Department of Radiology, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA

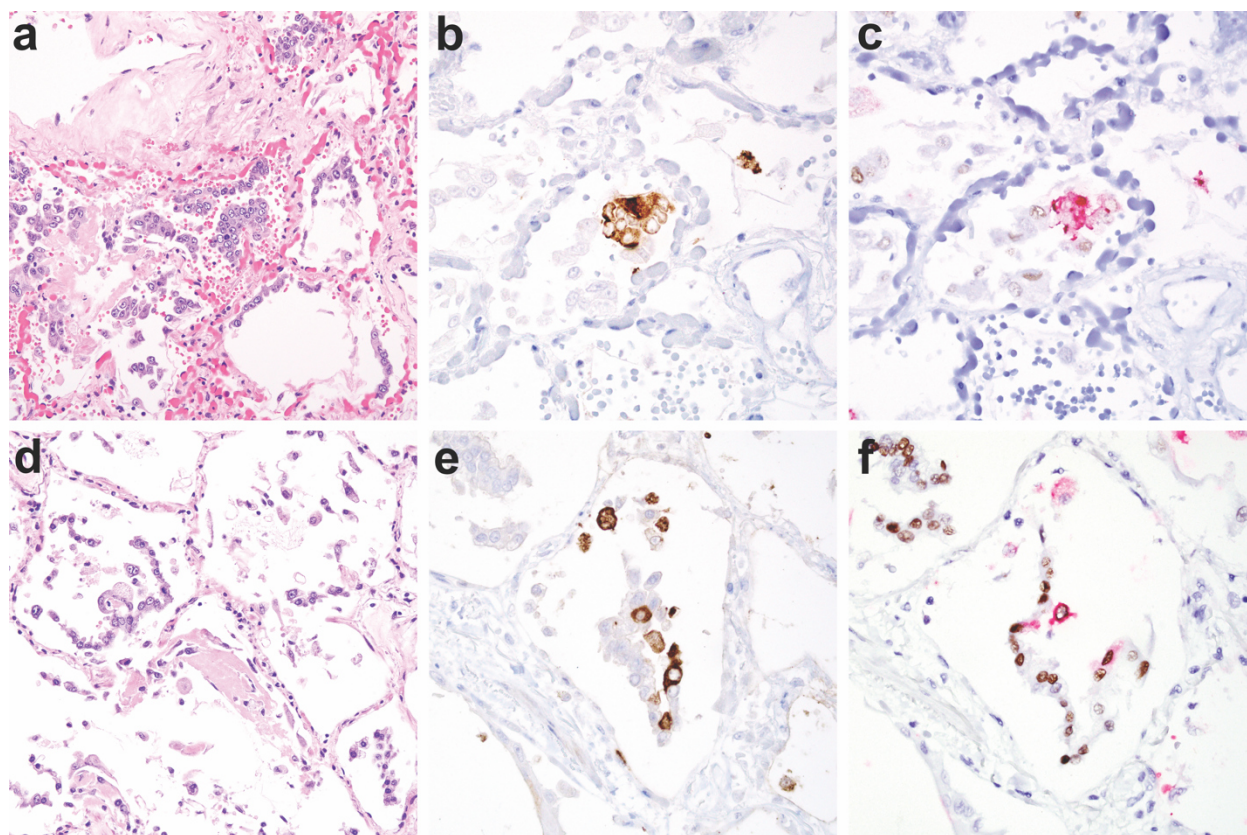
Correspondence:

Lynette M. Sholl, M.D., Department of Pathology, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115, USA; email: lmsholl@bwh.harvard.edu; phone: (617) 732-7510; fax: (617) 264-5118

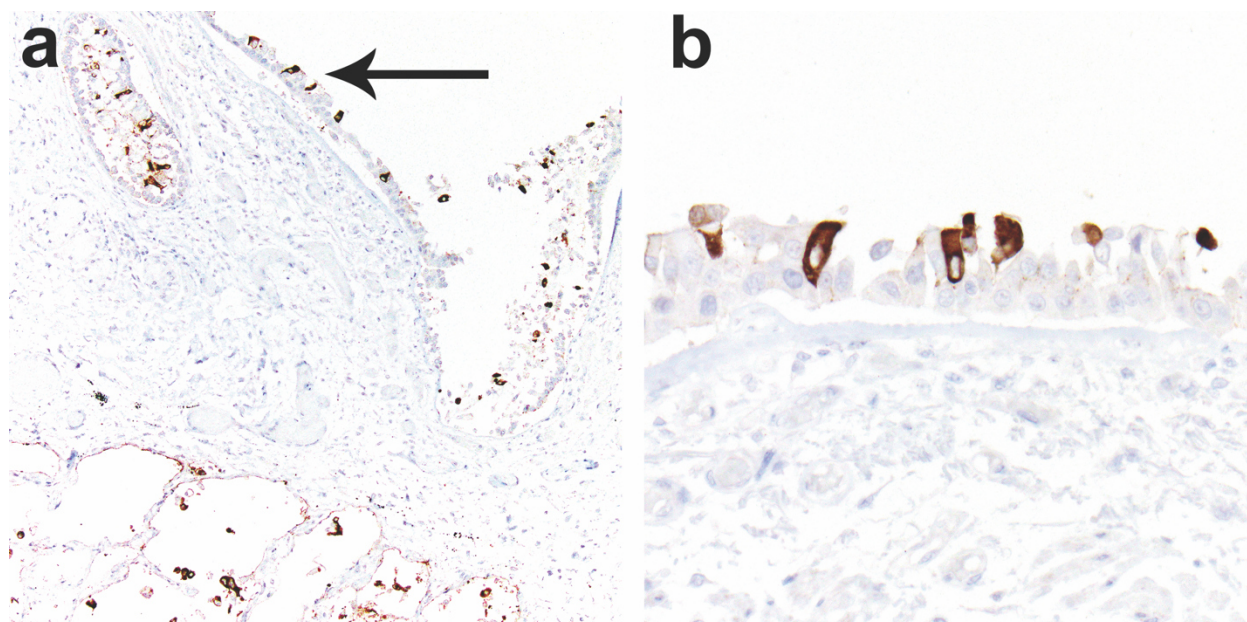
SUPPLEMENTARY INFORMATION – Table of Contents

Supplementary Figures

- Supplementary Figure 1. SARS immunohistochemical staining in areas of reactive change in lungs from patients 4 and 5 with COVID-19 (SARS-CoV-2 infection).
- Supplementary Figure 2. SARS immunohistochemical staining in intrapulmonary airways from patient 5 with COVID-19 (SARS-CoV-2 infection).



Supplementary Figure 1. SARS immunohistochemical staining in areas of reactive change in lungs from patients 4 and 5 with COVID-19 (SARS-CoV-2 infection). Histologic examination of the lungs from patients 4 (**a-c**) and 5 (**d-f**) revealed prominent reactive hyperplasia of alveolar lining cells in patient 4 (**a**) and 5 (**d**). SARS immunohistochemistry (IHC) was positive in these cells as confirmed by SARS single stain (brown reaction product) in patient 4 (**b**) and 5 (**e**) and TTF-1/SARS double labeling in patient 4 (**c**) and 5 (**f**) which demonstrates co-localization of TTF-1 (brown reaction product) and SARS (red reaction product) in reactive pneumocytes.



Supplementary Figure 2. SARS immunohistochemical staining in intrapulmonary airways from patient 5 with COVID-19 (SARS-CoV-2 infection). SARS immunohistochemistry (IHC) on lung sections shows diffuse strong SARS positivity in bronchial and bronchiolar airways (**a**, arrow), pneumocytes (**a**, bottom), and epithelial cells of submucous glands (**a**, top left). Within intrapulmonary airways, positive SARS IHC staining was detected mostly in ciliated cells (**b**).