SARS-CoV-2 and Spike References Daniel Demers, Robert Chandler

Biancatelli, R., et. al., Frontiers in Physiology, March 2022, Vol. 13, 1-9., HSP90 Inhibitors Modulate SARS-CoV-2 Spike Protein Subunit 1-Induces Human Pulmonary Microvascular Endothelial Activation and Barrier Dysfunction.

Biancatelli, R., et. al., Lung Cellular and Molecular Physiology. 321: L477-L484, 2021. The SARS-Cov-2 spike protein subunit S1 induces COVID-19like acute lung injury in K18-hACE2 transgenic mice and barrier dysfunction in human endothelial cells.

Brun, J., et al., BioRxiv, https://doi.org/10.1101/2020.11.16.384594, Analysis of SARS-CoV-2 spike glycosylation reveals shedding of a vaccine candidate.

Bullough, P., et al., Nature, 1994; 371:37-43. Structure of Influenza haemagglutinin at the pH of membrane fusion.

Buzhdygan, T., Neurobiology of Disease., 146 (2020) 105131. 1-12. The SARS-CoV-2 spike protein alters barrier function in 2D and 3D microfluidic in-vitro models of the human blood-brain barrier.

Henderson, R., et al, Nat Struct Mol Biol, 2020; 27(10):925-933. Controlling the SARS-CoV-2 spike glycoprotein conformation.

Hsieh, C., et al., (co-author Wrapp), Science, 2020; DOI:10.1126/ science. abd0826. Structure-based design of profusion-stabilized SARS-CoV-2-2 spikes.

Joomi. https://joomi.substack.com/p/coming-soon?s=r. Aug. 26, 2021. Clearing up misinformation about the spike protein and COVID vaccines.

Juraszek, J., et al., Nature Communications, 2021; 12, Article number 244. Stabilizing the closed SARS-CoV-2 spike trimer.

Kirchdoerfer, R., et al., Scientific Reports, 2018; 8:15701; DOI:10.1038/ s41598-018-34171-7. Stabilized coronavirus spikes are resistant to conformational changes induced by receptor recognition or proteolysis.

Krarup, A., et al., Nat Commun, 2015; 6:8143. A highly stable prefusion RSV F vaccine derived from structural analysis of the fusion mechanism.

Kuba, K., et al., Nature Medicine, 2005; 11(8):875-879. A crucial role of angiotensin converting enzyme 2 (ACE2) in SARS coronavirus-induced lung injury.

Lei, Y., et al., Circulation Research. 2021; 128:1323-1326. SARS-CoV-2 Spike Protein Impairs Endothelial Function via Downregulation of ACE 2.

Letarov, A., et al., Biochemistry (Moscow), 2021; 86(3):257-261. Free SARS-CoV-2 Spike Protein S1 Particles May Play a Role in the Pathogenesis of COVID-19 Infection.

Liu, C., et al., Structure, 2020; 28(11):1218-1224. The Architecture of Inactivated SARS-CoV-2 with Postfusion Spikes Revealed by Cryo-EM and Cryo-ET.

McCallum, M., et al., Nature Structural & Molecular Biology, October 2020; 27:942–949. Structure-guided covalent stabilization of coronavirus spike glycoprotein trimers in the closed conformation.

Masterjohn, C., Substack. 2022. https://chrismasterjohnphd.substack.com/p/thespike-protein-as-a-pore-forming?s=w, The Spike Protein as a Pore-Forming Toxin.

Masterjohn, C., Substack 2022. https://chrismasterjohnphd.substack.com/p/protecting-against-spike-protein?s=r., Protecting Against Spike Protein Toxicity With Sulfur, Selenium, and Sunlight.

Mereuta, A., et. al., ACS Appl. Mater. Interfaces. 2020, 12, 50. Non-Receptor-Mediated Lipid Membrane Permeabilization by the SARS-CoV-2 Spike Protein S1 Subunit.

Nuovo, G., et al. Annals of Diagnostic Pathology 51, 2021; 151682. Endothelial cell damage is the central part of COVID-19 and a mouse model induced by injection of the S1 subunit of the spike protein. Pallesen, J., et al., Proc Natl Acad Sci, 2017; 114: E7348-E7357. Immunogenicity and structures of a rationally designed prefusion MERSCoV spike antigen.

Qiao, H., et al., Journal Cell Biol, 1998; 141:1335-1347. Specific single or double proline substitutions in the "spring-loaded" coiled-coil region of the influenza hemagglutinin.

Rhea, E., et al., Nature Neuroscience, March 2021; 24:368-378. The S1 protein of SARS-CoV-2 crosses the blood–brain barrier in mice.

Sanders, R., et al., Journal Virology, 2002; 76:8875-8889. Stabilization of the soluble, cleaved, trimeric form of the envelope glycoprotein complex of human immunodeficiency virus type1.

Semimukai et al., Microbiol Immunol, 2020; 64:33-51. Gold nanoparticle-adjuvanted S protein induces a strong antigen-specific IgG response against severe acute respiratory syndrome-related coronavirus infection, but fails to induce protective antibodies and limit eosinophilic infiltration in lungs.

Walls, A., et al., PNAS, October 17, 2017; 114(42):11157-11162. Tectonic conformational changes of a coronavirus spike glycoprotein promote membrane fusion.

Wang, S., et al., Virus Research, 2008; 136:8-15. Endocytosis of the receptor-binding domain of SARS-CoV spike protein together with virus receptor ACE2.

Wang, Y., et al., J Med Virol, 2020; 93:892-898. SARS-CoV-2 S1 is superior to the RBD as a COVID-19 subunit vaccine antigen. Wrapp, D., et al., Science, 2020; 367:1260-1263. Cryo-EM structure of the 2019-nCoV spike in the prefusion conformation.

Xiong, X., et al., Nat Struct Mol Biol, October 1, 2020; 27(10):934-941. A thermostable, closed SARS-CoV-2 spike protein trimer.

Zhang, L., et al., BioRxiv Preprint. June 12, 2020. The D614G mutation in the SARS-CoV-2 spike protein reduces S1 shedding and increases infectivity.