## Call for the WHO Team to Investigate the Pangolin Coronaviruses and the RmYN02 Bat Coronavirus

Li-Meng Yan (MD, PhD), Shu Kang (PhD), Shanchang Hu (PhD) Yan Research – An Independent Research Team Correspondence: team.lmyan@gmail.com

If the WHO team really is investigating the origin of SARS-CoV-2, what they cannot overlook are the pangolin coronaviruses<sup>1-4</sup> and the RmYN02 bat coronavirus<sup>5</sup>.

This is because these coronaviruses are greatly pertinent to the origin of SARS-CoV-2:

- The pangolin coronaviruses reportedly contain receptor-binding domains (RBD) that are highly identical to that of SARS-CoV-2;
- Four separate Chinese labs reported such pangolin coronaviruses (all four manuscripts were submitted for publication within 12 days in Feb 2020)<sup>1-4</sup>;
- Unlike what is described for RaTG13<sup>6</sup>, original samples of the pangolin coronaviruses and the RmYN02 bat coronavirus are clearly not exhausted and can be provided by these labs;
- In two studies<sup>1,3</sup>, live pangolin coronaviruses have been successfully isolated and therefore must be kept in these two research labs;
- The 2<sup>nd</sup> Yan report has shown, using robust evidence and analyses, that the pangolin coronaviruses and the RmYN02 bat coronavirus were results of fabrication and were published in a coordinated manner<sup>7</sup>.

The WHO team should:

- 1. Obtain the isolated pangolin coronavirus strains from the Yongyi Shen lab at South China Agricultural University and the Wuchun Cao lab at the Academy of Military Medical Sciences (AMMS).
- 2. Obtain the tissue samples (lung, intestine, scale, skin swab, blood) that the Chinese labs used to sequence and/or isolate the pangolin coronaviruses.
- 3. Obtain the original samples used for the sequencing of the RmYN02 bat coronavirus.
- 4. Obtain all raw files critically relevant to sequencing.

- 5. Have the collected tissue samples, live viruses, sequencing files, etc. independently analyzed and investigated by separate research labs in countries other than China.
- 6. Investigate how the AMMS scientists from Wuchun Cao's lab (in collaboration with Yi Guan's lab) and Ruifu Yang's lab (in collaboration with Yongyi Shen's lab; Ruifu Yang's name appeared in the original news conference but omitted in the official publication<sup>7</sup>) were involved in these studies. How exactly did the AMMS contribute in each case? Which specific experiments were performed and accomplished by the AMMS scientists?
- 7. Investigate why Yongyi Shen group manipulated the sequencing raw data to intentionally hide the fact that they used published data<sup>8</sup> in their study<sup>1</sup>.

## Reference

- 1. Xiao, K. et al. Isolation of SARS-CoV-2-related coronavirus from Malayan pangolins. *Nature*, 10.1038/s41586-020-2313-x (2020).
- 2. Zhang, T., Wu, Q. & Zhang, Z. Probable Pangolin Origin of SARS-CoV-2 Associated with the COVID-19 Outbreak. *Curr Biol* **30**, 1578 (2020).
- 3. Lam, T.T. et al. Identifying SARS-CoV-2-related coronaviruses in Malayan pangolins. *Nature*, 10.1038/s41586-020-2169-0 (2020).
- 4. Liu, P. et al. Are pangolins the intermediate host of the 2019 novel coronavirus (SARS-CoV-2)? *PLoS Pathog* **16**, e1008421 (2020).
- 5. Zhou, H. et al. A Novel Bat Coronavirus Closely Related to SARS-CoV-2 Contains Natural Insertions at the S1/S2 Cleavage Site of the Spike Protein. *Curr Biol* **30**, 2196-2203 e3 (2020).
- 6. Zhou, P. et al. A pneumonia outbreak associated with a new coronavirus of probable bat origin. *Nature* **579**, 270–273 (2020).
- Yan, L.-M., Kang, S., Guan, J. & Hu, S. SARS-CoV-2 Is an Unrestricted Bioweapon: A Truth Revealed through Uncovering a Large-Scale, Organized Scientific Fraud. *Zenodo.org (preprint)*, <u>http://doi.org/10.5281/zenodo.4073131</u> (2020).
- 8. Liu, P., Chen, W. & Chen, J.P. Viral Metagenomics Revealed Sendai Virus and Coronavirus Infection of Malayan Pangolins (Manis javanica). *Viruses* **11**, doi: 10.3390/v11110979 (2019).