

Traditional Chinese Medicine “Coronavirus-clearing Concoction” Developed by NYCU Proven to Prevent COVID-19 and Lower COVID-19 Infection

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Modern medical science has proven that traditional Chinese medicine can be used to prevent COVID-19. “Coronavirus-clearing concoction,” a traditional Chinese medicine developed by the Institute of Traditional Medicine, NYCU (hereafter “ITM”), has been verified to lower the chances of infection and relieve coronavirus-related symptoms, making it an extra means of protection against COVID-19 in addition to COVID-19 vaccines. The NYCU will adopt the model for licensing the AZ vaccine when licensing the concoction to benefit the public.

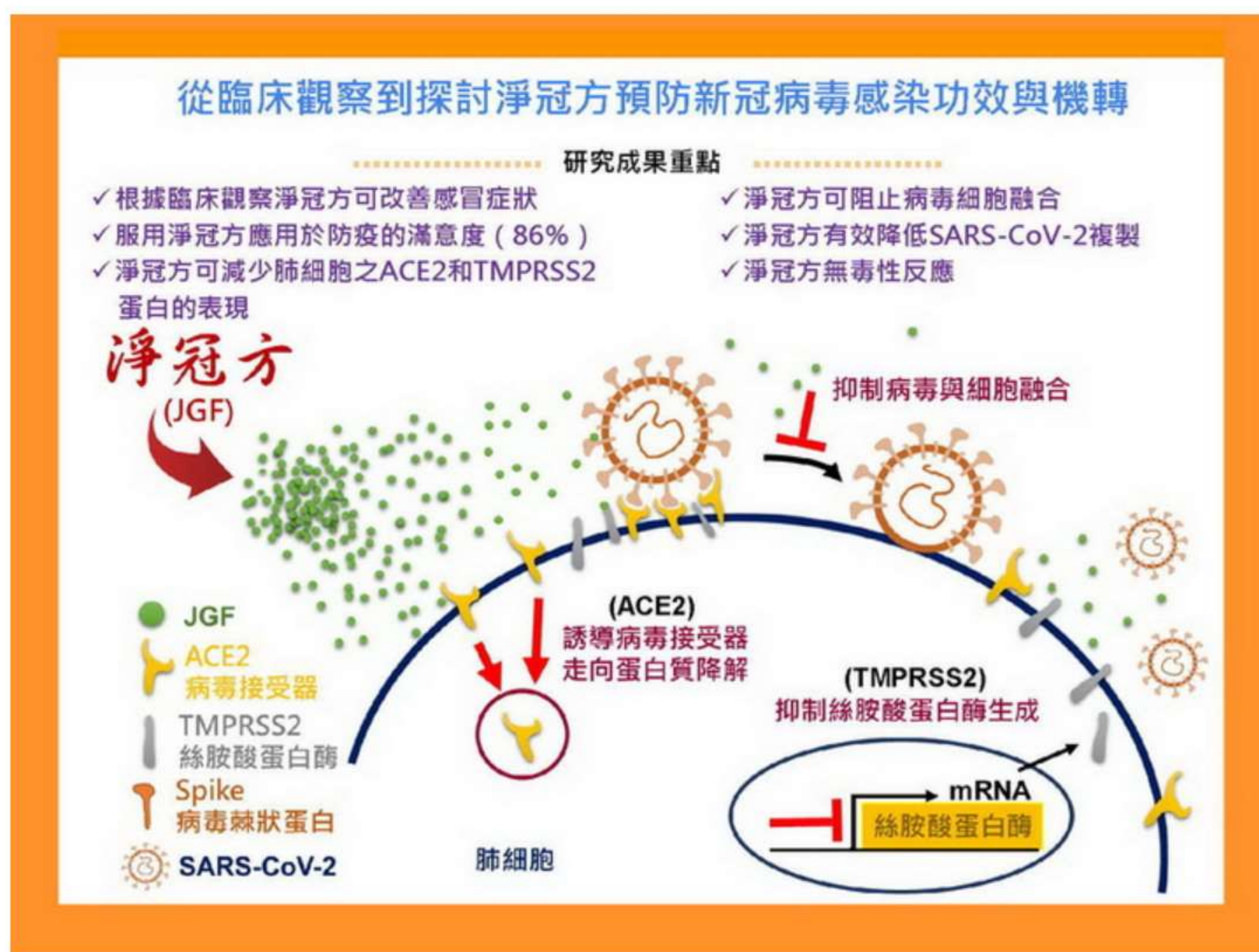
The concoction, developed by Hsu Chung-hua, professor at the ITM and superintendent of the Branch of Linsen, Taipei City Hospital, contains the herbal medicines *Forsythia suspensa*, *Scutellaria baicalensis*, *Bupleurum chinense*, *Magnolia officinalis*, and *Agastache rugosa*. Professor Hsu developed the concoction by referencing his SARS epidemic-prevention experience in 2003, his clinical experiences, and traditional Chinese medicine theories.

The concoction was administered to more than 1,000 frontline medical personnel prior to the mass vaccination in Taiwan. The medical personnel voluntarily took the concoction as a means of self-protection and symptom improvement. A total of 90% of the medical personnel subsequently interviewed indicated that their sore throat, cough, and headache improved considerably after taking the concoction for a week.



To investigate the scientific mechanisms of this concoction, ITM Professor Fu Shu-ling, ITM Associate Professor Lin Tung-yi, and Department and Institute of Pharmacology Associate Professor Ping Yueh-hsin formed a research team and conducted animal experiments. The experimental results showed that by feeding the animals the concoction for two days, their *in vivo* ACE2 and TMPRSS2 expressions dropped significantly. Because the proteins on the membranes of the two cells are receptors where coronaviruses and cells bond, decreasing such expressions reduces the opportunities for coronaviruses to successfully bond with cells, effectively preventing infection of host cells.

Medication via steam where drugs are absorbed by nasal cavities via steam is a common practice in traditional Chinese medicine. Such a practice allows drugs to be quickly transferred to nasal cavities and lungs, ameliorating cold symptoms. Accordingly, the research team administered the concoction to lab rats via steam. The results showed that said medication method also lowered the ACE2 protein expression significantly in the rats’ lungs, confirming the feasibility of inhalation dosing.



During the cell experiments, the research team also found that in addition to decreasing the opportunities for coronaviruses to bond with cells, the concoction inhibited coronavirus replication.

The research team stated that despite COVID-19 continuing to mutate, the use of traditional Chinese medicine to reduce and weaken the virus may serve as an auxiliary infection-prevention method. Said medicine, which is safe and effective, offers the public a novel COVID-19-prevention strategy.

However, the research team emphasized that the concoction cannot replace COVID-19 vaccines. Professor Hsu Chung-hua said that the concoction is used to weaken and attenuate the virus, serving as an auxiliary means of protection and an additional COVID-19-prevention strategy. He further underlined that the concoction requires a medical prescription by traditional Chinese medicine doctors, that more clinical and basic research is needed to verify the effectiveness of the concoction, and that people should consult professional doctors if they would like to learn more about the concoction.

This research was made possible because of the NYCU team and support from the Ministry of Science and Technology, confirming the feasibility of traditional Chinese medicine and allowing the “coronavirus-clearing concoction” to be published in the renowned pharmacology journal *Frontiers in Pharmacology*.

