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# Hong Kong discovers distinct gut microbial signatures for 'long COVID'

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**This is the world's first study to demonstrate the gut microbiota as a key determinant of long COVID**

Clinical researchers from The Chinese University of Hong Kong's (CUHK) Faculty of Medicine (CU Medicine) have identified for the first time distinct gut microbiome profiles associated with post-acute COVID-19 syndrome, more commonly known as "long COVID".

These distinct gut microbial signatures can be used to predict the risk of developing long COVID and diagnose long COVID in patients with persistent symptoms after the acute infection. This is the world's first study to demonstrate the gut microbiota as a key determinant of long COVID. Study results have been published in the international journal *Gut*.

In a pilot study, the team has also shown that a novel gut microbiome immunity formula (SIM01) developed by CUHK can prevent the development of long COVID. CU Medicine is now conducting a randomised clinical trial using the SIM01 formula to modulate patients' gut microbiota to prevent and treat long COVID.

Long COVID is defined as the presence of persistent symptoms, such as fatigue, poor memory, difficulty in sleeping or breathing and hair loss, for four weeks or more after clearance of the SARS-CoV-2 virus. According to a study by CU Medicine, about 80% of patients had long COVID six months after recovering from COVID-19.

Diagnosis of long COVID is often delayed because symptoms are non-specific and there is no specific test to explain long COVID symptoms. The development of non-invasive, microbiome-based profiling will be a useful tool for timely detection of long COVID.