

349 Patients infected with Omicron variant (PIOV)  
262 Recovered patients who were infected with the Omicron variant (RP)  
72 Patients infected with original strain (PIOS)  
301 Healthy controls (HC)

Exclude  
8 RP, 1HC Sequencing failed  
12 RP missing information

Tongue-coating samples  
349 PIOV  
242 RP  
72 PIOS  
300 HC

DNA extraction  
Library construction  
16S rRNA sequencing on illumina Miseq

349 PIOV  
242 RP  
72 PIOS  
300 HC

Randomization

Discovery phase  
200 HC  
233 PIOV

Validation phase  
100 HC  
116 PIOV

Microbial phylogeny  
Marker selection & model  
construction by RFC

Validate the effectiveness  
of the diagnostic model  
from microbial perspective