strain of Mycobacterium bovis. At present, three new

clinical trials have been registered to evaluate the

protective role of BCG vaccination against SARS-

CoV-2 (363). Recently, a cohort study was conducted

to evaluate the impact of childhood BCG vaccination

in COVID-19 PCR \_ positivity rates. However,

childhood BCG vaccination was found to be

associated with a rate of COVID-19-positive test

results similar to that of the nonvaccinated group

(364). Further studies are required to analyze

whether BCG vaccination in childhood can induce

protective effects against COVID-19 in adulthood.

Population genetic studies conducted on 103

genomes identified that the SARS-CoV-2 virus has

evolved into two major types, L and S. Among the

two types, L type is expected to be the most

prevalent (~70%), followed by the S type (~30%)

(366). This finding has a significant impact on our

race to develop an ideal vaccine, since the vaccine

candidate has to target both strains to be considered

effective. At present, the genetic differences between

the L and S types are very small and may not affect

the immune response. However, we can expect

further genetic variations in the coming days that

could lead to the emergence of new strains (367).