



**Abstract Submission No. : 9008**

## **Immunology of COVID-19 infection**

**Eui-Cheol Shin**  
***KAIST, Korea***

Coronavirus disease 2019 (COVID-19) is caused by infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and manifests in various clinical forms, from asymptomatic or mild disease to severe disease. The ongoing COVID-19 pandemic has had devastating impacts on not only public health, but also the economy and society. In response to the rapid spread of COVID-19, prophylactic vaccines have been developed at an unprecedented pace using diverse platform technologies, including mRNA, viral vector, and inactivated virus. Since the emergence of COVID-19, a lot of studies have been conducted to understand SARS-CoV-2, immune responses to SARS-CoV-2, and the pathogenesis of COVID-19. In this lecture, I will talk about SARS-CoV-2-specific CD4<sup>+</sup> and CD8<sup>+</sup> T cell responses as well as neutralizing antibodies. I will also discuss the presence of SARS-CoV-2-reactive T cells in unexposed individuals and SARS-CoV-2-specific antibody and T cell responses elicited by COVID-19 vaccination.