

# **Immune responses and vaccines for COVID-19 vs. cancer**

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The global pandemic caused by COVID-19 remarkably accelerates vaccine development, and several vaccines are currently in use under emergency use authorizations. Among these vaccines, mRNA-based vaccines exhibit outstanding efficacy and safety records. Of note, BioNTech, a German company that developed mRNA vaccines in collaboration with Pfizer, had mainly developed personalized cancer vaccines, and had not done anything related with infectious diseases until COVID-19 outbreak. This indicates that COVID-19 and cancer share common features as immune-related diseases. In this presentation, I will describe the shared and distinct characteristics of COVID-19 and cancer in terms of immune responses and vaccine development.