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# Current Research Status of SARS-CoV-2 as a Pathogen of COVID-19

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## Abstract

COVID-19 was first identified in an outbreak in Wuhan, China, in December 2019. COVID-19 is defined as Corona Virus Infectious Disease 2019, and it's caused by SARS (severe acute respiratory syndrome)-CoV (coronavirus)-2. This article shows the current research status on SARS-CoV-2.

**Keywords:** SARS-CoV-2, Vaccine

SARS-CoV-2 is a positive-sense single-stranded RNA virus, and its sequence was analyzed and compared to SARS-CoV (outbreak in 2002.11.16~2003.7.5), and another Bat-RaTG13, Pangolin, Bat-SARS-CoV-related (Andersen, 2020).

First of all, the characteristic feature of this virus has a receptor-binding domain of ACE2 (Angiotensin-converting enzyme) which bind host cell receptor. ACE is one of the Renin-Angiotensin-Aldosterone System (RAAS) which raises blood pressure.

The second feature of this virus has a cleavage site of surface Spike protein which newly acquired 4 amino acids compared to other coronaviruses. It is a unique amino acid that binds tightly and cleavage the host surface. This site is contributed to be one of the vaccine candidates. Actually, 5 candidates of Vaccine are now estimated in humans (Le, 2020). Making of vaccine after animal experiment needs 1 or 2 years.

## References

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