COVID-19 Research Milestones



In the two years since SARS-CoV-2 was first identified in Wuhan, China, a tremendous amount of research has been conducted, rapidly published, and endlessly scrutinized by thousands. The virus has been characterized molecularly, clinically, and epidemiologically. This timeline includes some of the most important (and highly cited) research that has helped shed light on the coronavirus structure and mechanism of action as well as inform the development of diagnostic tests, antiviral drugs, and vaccines.

JAN 13 2020

First draft genome of the novel coronavirus is made available to the biomedical community.[1]



JAN 24 2020

Lancet paper describes clinical features of COVID-19 patients.[2]



JAN 24 2020

Study confirms person-to-person transmission of SARS-CoV-2.[3]



MAR 30 2020

Nature paper describes the receptor recognition mechanism of SARS-CoV-2.[6]



MAR 11 2020

Risk factors associated with severe symptoms and death identified.[5]



FEB 28 2020

Clinical characteristics of over 1,000 COVID patients described in NEJM paper.[4]



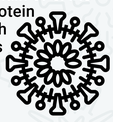
MAY 6 2020

Key cell entry mechanisms of SARS-CoV-2 identified.[7]



MAY 14 2020

The crystal structure of the C-terminal domain of SARS-CoV-2 spike protein in complex with human ACE2 is published in *Cell*.[8]



MAY 14 2020

A high-resolution map of the SARS-CoV-2 transcriptome and epitranscriptome is published in Cell.[9]



SEP 1 2020

Study finds that 40 to 45% of people infected with SARS-CoV-2 will remain asymptomatic.[12]



JUL 15 2020

SARS-CoV-2-specific T cells characterized in COVID-19 patients.[11]



MAY 28 2020

Reduced innate antiviral defenses combined with high inflammatory cytokine production proposed as a driving feature of COVID-19.[10]



OCT 12 2020

Previously infected individuals confirmed to not have guaranteed total immunity to SARS-CoV-2.[13]



FEB 10 2021

Study suggests mRNA vaccines may need to be updated periodically to avoid a potential loss of clinical efficacy.[14]



MAR 8 2021

Emerging variants with mutations in the spike protein found to present challenges for mAb therapies and threaten the efficacy of vaccines.[15]



DEC 2 2021

Study finds Omicron variant is associated with the substantial ability to evade immunity from prior infection.[18]



JUL 8 2021

Delta variant confirmed to be more resistant to neutralization by antibodies.[17]



MAY 17 2021

Antibody neutralization level found to be predictive of immune protection.[16]



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