Structural Assembly of SARS-CoV-2 Virus

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Structure and binding of COVID-19 virus to ACE2. The structure of COVID-19 includes 4 proteins like spike (S), nucleocapsid (N), membrane (M), envelope (E), which maintain the structure and function. In this virus structure, the S protein plays an important role in binding the virus to the receptor of the host cell. S protein is made up of 2 subunits S1 is receptor binding protein and S2 is the membrane fusion subunit while S1 bind with the receptor of host cell whereas S2 internalises and create the fusion of membrane between the viral subunit and the ACE 2 (Angiotension converting enzyme 2) receptor of the host cell which leads to the release of RNA of COVID-19 virus into the host cell and results into an infection of the respiratory system. The N protein helps the virus to form capsid and the entire structure appropriately. The S subunits are in the crown structure the reason coronavirus (co-rona=crown) named so.

Figure 1

Structure and binding of COVID-19 virus to ACE2. The structure of COVID-19 includes 4 proteins like spike (S), nucleocapsid (N), membrane (M), envelope (E), which maintain the structure and function. In this virus structure, the S protein plays an important role in binding the virus to the receptor of the host cell. S protein is made up of 2 subunits S1 is receptor binding protein and S2 is the membrane fusion subunit while S1 bind with the receptor of host cell whereas S2 internalises and create the fusion of membrane between the viral subunit and the ACE 2 (Angiotension converting enzyme 2) receptor of the host cell which leads to the release of RNA of COVID-19 virus into the host cell and results into an infection of the respiratory system. The N protein helps the virus to form capsid and the entire structure appropriately. The S subunits are in the crown structure the reason coronavirus (co-rona=crown) named so.