

Inhalation Therapy Against SARS-CoV-2 Virus with Nanotechnology

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Researchers report that a new inhalation treatment uses nanoparticles to target the spike protein SARS-CoV-2. The results of the study are promising and offer effective potential Treatment of severe Covid-19 disease. In laboratory tests, inhalable nanobodies were able to provide effective protection against infection with the Coronavirus.

An innovative inhaled treatment against SARS-CoV-2

Scientists have shown that a low dose of an aerosol for a nanobody called Pittsburgh Inhalable Nanobody-21 (PiN-21) protects hamsters from losing too much weight. This condition is usually associated with severe infection due to the Coronavirus. The method used was able to drastically reduce the number of infectious virus particles in animals.

The team found this in the nasal cavities, throat, and lungs a million times compared to a placebo using a nanoscale that did not neutralize the effect of the virus. According to the [study](#) authors, medical professionals can make treating COVID-19 more efficient with inhalation therapy that works directly on infection sites such as the airways and lungs.

Research results show that PiN-21 provides a high level of protection against dangerous diseases. This treatment approach may also prevent the transmission of multiple viruses from person to person.

The nanoparticles used in the experiment are about four times smaller than typical monoclonal antibodies. It also has exceptionally high stability and is also much cheaper to manufacture. This nanotechnology can also be rapidly constructed in order to adapt to the mutated virus. Delivering nanobodies directly to the lungs could also make a big difference to the treatment strategies for Sars-CoV-2.

However, the researchers point out that the nanobodies and vaccines complement each other and not compete with each other. Nanobodies are useful in treating patients and

people who have not been vaccinated for other medical reasons.

Promising preclinical early data, combined with scientists' extensive knowledge of rapidly identifying nanobodies used in pharmaceuticals, indicate that this study It could provide a convenient and inexpensive treatment option to combat the coronavirus pandemic.

Read the [original article](#) on BioPrepWatch.