Intra-pulmonary Drug Delivery Platform Based on Chitosan Nanoparticles for Treating COVID-19

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Novochizol™ nanoparticle aerosol formulation can be used to deliver and confine any potential anti- COVID-19 drug to the lungs of acutely ill patients.

Bioavanta-Bosti, a leader in chitosan nanoparticles research, today announced the release of Novochizol a unique polysaccharide nanotechnology which can be used to encapsulate any active pharmaceutical ingredient – small molecule or biologic – for localized delivery and sustained release in any tissue or organ.

Bioavanta-Bosti has just completed the development of a 48-hour Novochizol TM- based manufacturing process to generate intra-pulmonary drug delivery formulations suitable for treating COVID-19 patients.

Nanotechnology in Battle Against Coronavirus ...

“We may not know much about SARS-CoV-2 disease mechanisms, but we do know that the lungs are the place where the infection and the resulting inflammatory response cause tissue damage with dire consequences” explains Vanya Loroch, Novochizol representative in Switzerland. “Accordingly, the lungs are the place where an effective localized pharmacological treatment may become a life saver”.

Vladislav Fomenko, the inventor of Novochizol technology explains that the chitosan nanoparticles are fully biocompatible, strongly adhere to lung epithelial tissues and ensure sustained release, without systemic distribution. Extensive preclinical testing , conducted by Bioavanta-Bosti’s academic partners, indicates that Novochizol is a safe and effective drug delivery technology.

“We are interested in partnering with drug developers and clinical researchers to rapidly develop a repurposed drug or new molecular or biological entity formulations to help treat severe COVID-19 infection, in the lungs. Based on our ongoing proof of concept studies (Losartan, Valsartan, Telmisartan, Digoxin, rACE2) we know Novochizol aerosols can deliver a therapeutic dose to a patient over a period ranging from 25 minutes to 3 hours.”

On Friday the 13th of March, the EMA has announced that the Agency will provide full fee waivers for scientific advice applications from developers of potential therapeutics (to treat the disease) or vaccines (to prevent the disease) against the novel coronavirus disease (COVID-19).

Read the original article on Swiss Biotech.