A Novel Treatment Modality for COVID-19: Global Cancer Technology is Developing a Nanoparticle Which May Selectively Target, Bind and Inactivate Coronavirus Virions

Global Cancer Technology, an emerging biopharmaceutical company, is developing a novel treatment modality to selectively kill the COVID-19 virus.

San Francisco, CA, December 30, 2020 --(PR.com)-- COVID-19 is relentless, showing no signs of abating any time soon. December 2020 is the deadliest month on record since the pandemic began with more than 63,000 Americans deceased before Christmas as a result of the disease. Worldwide, more than 81 million cases and 1.8 million deaths have been reported. Innovative treatments are critically needed to support healthcare workers and hospitals that continue to operate at or beyond capacity. Global Cancer Technology (GCT) has licensed a technology developed at the UCSD Medical System for a novel treatment that is designed to selectively target and inactivate coronavirus virions.

“The vaccines developed in record time offer us all great hope,” said John Clark, CEO and founder of GCT. “However, their supply chain delivery challenges and high costs per dose will limit how quickly billions of people worldwide can be inoculated. In the interim, we need a treatment to aid those who are hospitalized with the virus and at risk of dying from it.”

In the early phase of the global pandemic, the anti-malaria medication, hydroxychloroquine, was touted as potentially beneficial for the treatment of COVID-19 but the FDA later did not encourage its use for this indication. Today’s standard of care for hospitalized patients requires the intravenous injection of Remdesivir®, a broad spectrum anti-viral medication. As the number of hospitalizations and deaths continue to rise, with health authorities warning of a “nightmarish” winter toll on our healthcare workers and our society, additional treatment modalities that can work independently, or synergistically in combination with Remdesivir, are desperately needed.

The GCT team of scientists and clinicians is developing a novel COVID-19 treatment based on the photo-dynamic properties of nanocrystal scintillators. These nanoparticles readily absorb X-rays, even when exposed to low doses, and transform that radiation into bursts of ultra-violet light when activated. GCT has modified the surface of these nanoparticles with COVID-specific binding proteins.

These nanoparticles can be delivered directly to the patient’s infected lungs via ventilators and respirators, or via intravenous injection if the lungs are obstructed by fluids. Once inside the lungs, the nanoparticles are designed to behave like magnets that selectively and irreversibly bind their targets – protein receptors on the spikes that are infamously displayed on the exterior of COVID-19 virus particles. They can then be activated with a low dose of radiation delivered to the lungs only: as low as 1/400th the dose of standard chest X-ray is effective. The nanoparticles are designed to absorb X-ray radiation and transform it into a burst of short wavelength ultra-violet-A light. UV-A light is known to damage coronavirus particles and to inactivate them.

“What this technology has the potential to do is to engage and destroy virus particles directly in the lungs
of COVID patients,” explained Clark. In simple terms, GCT’s nanoparticle scintillator technology platform can be readily and affordably deployed worldwide. “Due to the elegant simplicity of this approach,” Clark continued, “it also has the potential for widespread use globally given its relatively low cost and accessibility from an ease-of-use application perspective. This is going to be particularly important given the cold chain logistics challenges associated with deploying the two vaccines that have been approved and how long it will take to inoculate billions of people around the world.”

Additional funding is needed to further develop the particles and subsequently test the nanoparticles in cell-based and in vivo systems as well as to conduct preclinical studies which could lead to a formal line of research to support an IND application to the FDA.

About Global Cancer Technology: Global Cancer Technology (GCT) is an emerging biopharmaceutical company that is pre-revenue and financially operates as a medical technology holding company. GCT holds numerous patents and other assets including licenses to commercialize nanoparticle technology for the treatment of COVID-19, cancer and other diseases requiring targeted therapeutic delivery. In collaboration with highly acclaimed academic institutions such as UCSD and the University of Washington, along with recognized industry leaders, GCT aims to make novel therapies available to patients as quickly as possible. The company has already raised $1 million in a private placement. The SEC has recently qualified GCT to commence raising $9 Million under a Reg A+ registration.

Sources:
https://www.worldometers.info/coronavirus/?zarsrc=130
Contact Information:
Global Cancer Technology
Loralyn Mears
804-539-2324

Contact via Email
globalcancertechnology.com

Online Version of Press Release:
You can read the online version of this press release at: https://www.pr.com/press-release/828056

News Image: