
Significant Progress in Using Virus-Like Particles as a Vaccine and Treatment for COVID-19

SARS-CoV-2, the novel coronavirus that causes the disease COVID-19, has infected more than 500,000 people and caused more than 20,000 deaths. Unlike MERS-CoV and SARS-CoV, this novel coronavirus spreads much more quickly and aggressively. Since it is a new virus, there are no approved vaccines to prevent infection and no effective treatments to cure infected patients.

AscentGene, Inc., a Maryland-based biotech company with expertise in developing virus-like particles (VLPs), announced today progress in its efforts to develop a COVID-19 vaccine “AG-V19”. AscentGene successfully created its COVID-19 vaccine candidates using its proprietary AG21 technology platform to generate virus-like particles that can be assembled with SARS-CoV-2 structural proteins. The size, morphology and characteristics of the VLPs are similar to the authentic virus, but safer because they do not contain the virus’ genetic material (see Fig 1 and 2). Thus, VLPs serve as highly immunogenic non-infectious mimics of the virus.

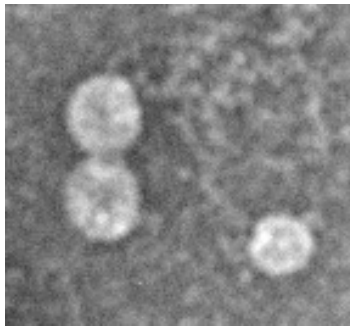
AscentGene has a proven track record of VLP development for different viruses, including norovirus, HIV, influenza, MVM, HPV and MERS. Our phase I goal is to quickly develop a VLP-based vaccine to provide a strong protection against COVID-19 and treatment for the infected patients. Our phase II goal is to further develop an oral vaccine using AscentGene’s proprietary technology of an engineered protein shield that allows VLPs to be protected from the upper gastrointestinal tract.

Virus-like particles have a strong record of success in clinical studies. They are highly immunogenic, as well as highly efficacious in protecting infections from different viruses. Currently, there are at least six licensed VLP-based vaccines providing protective immunity and over 100 VLP vaccines in clinical trials. RNA or DNA vaccines have recently received much attention, including a messenger RNA-based vaccine for COVID-19 developed by Moderna and NIAID (mRNA-1273). However, this technology is untested and there are questions about the ability of mRNA to stimulate a potent immune response.

AscentGene strives to rapidly develop its VLP-based vaccine to protect people from COVID-19 infection and save lives. We welcome healthcare professionals, biopharma partners and investors who have an interest in SARS-CoV-2 VLP vaccines to contact us about working together to expedite the manufacture of the vaccine AG-V19.

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Fig 1: AG-V19a (COVID-19 VLPs)-032320



100 nm

100 nm

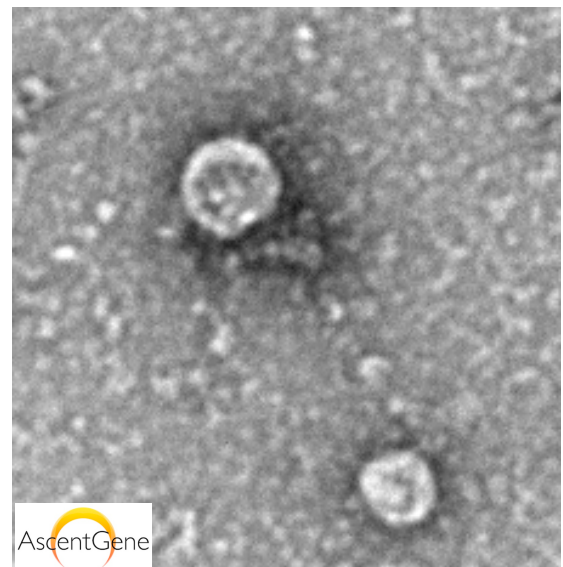
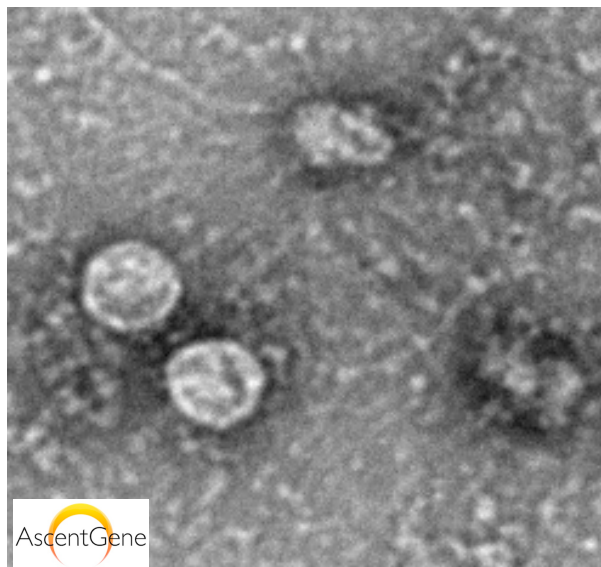


Fig 2: AG-V19b (COVID-19 VLPs)-032320

