

OliX Pharma employs RNAi approach for COVID-19 therapy

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It will leverage previous preclinical research for developing siRNA therapeutics



South Korea based Olix Pharmaceuticals, Inc., a leading developer of RNA interference (RNAi), has announced that it will leverage previous preclinical research for developing siRNA therapeutics in treating respiratory illnesses to investigate a path forward for developing a COVID-19 therapy.

OliX Pharmaceuticals filed a provisional patent application to advance the development of RNAi therapeutics against COVID-19 on February 25, 2020. The patent provides broad composition of matter claims to more than 30 small interfering RNAs (siRNAs) designs that target available genomes of the COVID virus, which are highly conserved regions compared to other coronaviruses, such as SARS and MERS and can potentially be used effectively against coronaviruses.

Specifically, the target regions are coding the proteins for playing an important role in virus replication (e.g., 3CL-protease, RNA-dependent, RNA polymerase, and Spike protein). The siRNAs would operate within the RNAi pathway, where it interferes with the expression of the genes with complementary nucleotide sequences by degrading mRNA after transcription, resulting in no translation.