

CEBINA identifies a common antihistamine nasal spray as a potential anti-COVID-19 approach

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CEBINA GmbH, an Austrian biotech company, announces positive results of its COVID-19 drug repurposing project with the identification of commonly used approved drugs with activity against SARS-CoV-2 infection in *in vitro* assays. One of these drugs, Azelastine an antihistamine currently available as a nasal spray, has been identified as a potential topical preventive or post-exposure anti-COVID-19 approach.

CEBINA, in collaboration with Professor Robert Konrat, a renowned structural biologist (University of Vienna, Austria) has applied a computational approach, integrating several software tools and novel biological pathway analysis, to identify potential anti-COVID-19 drugs. This approach was complemented with *in vitro* viral infection testing with SARS-CoV-2 performed in a collaboration with Professor Ferenc Jakab, Head of the BSL-4 Laboratory in the Szentágothai Research Center, University of Pécs, Hungary. The results show that five generic drugs demonstrate anti-SARS-CoV-2 activity. The most potent among the identified drugs, Azelastine is available as a topically applied product and has only modest side-effects. The other identified drugs are commonly used in anti-hypertensive therapy: Telmisartan, Metoprolol, Losartan and Amiloride.

"As the number of COVID-19 cases continues to surge, the identification of Azelastine presents a highly promising preventive and/or post-exposure anti-COVID-19 solution, particularly considering that this drug is widely available as nasal spray and can act directly at the initial site of viral infection" said Eszter Nagy, MD PhD, CEO and founder of CEBINA. "We are working towards confirming our findings in a clinical study, especially the observation that a significantly lower dose might be effective. A lower dosage would be expected to reduce the known side effects, which are not significant though potentially unpleasant and could differentiate between the COVID-19 and the anti-allergic indications."

"We are thrilled to see that our in-silico approach has led to the identification of existing and readily available drugs that have proven anti-SARS-CoV-2 activity, as these findings can have an immediate beneficial effect in the fight against COVID-19" commented Professor Robert Konrat.

CEBINA has applied for patent protection for its findings and will publish the scientific data shortly.

CEBINA is in discussion with Sigmapharm Arzneimittel GmbH, an Austrian company highly experienced in the manufacturing of nasal sprays, with readily available and significant production capabilities, for the development and production of an Azelastine product. To accelerate access to this anti-COVID-19 approach with broad availability adequate for the global need, CEBINA is open to third party financing and will be seeking licensing partners for worldwide distribution to enter the market in the near future.

ABOUT CEBINA

CEBINA GmbH – Central European Biotech Incubator and Accelerator (<u>http://www.cebina.eu/</u>) is an Austrian-based company offering its team's research, development, financing and management capabilities to early and medium stage biotech companies as well as pursuing its own development

projects particularly in infectious diseases. CEBINA has recently announced the initiation of multiple research projects to fight the COVID-19 pandemic.

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