



UNIWERSYTET JAGIELLOŃSKI
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License offer

The **Centre for Technology Transfer CITTRU** is looking for partners interested in the development of the invention and its commercial applications.

Novel antiviral agent based on modified chitosan

- **Medical background: Coronaviruses (CoV)** cause many diseases in humans and animals; in particular, human pathogens include HCoV-229E, HCoV-NL63, HCoV-OC43, HCoV-HKU1 and SARS-CoV. The latter causes a condition called Severe Acute Respiratory Syndrome (SARS) – an atypical pneumonia that first appeared in China in 2002. Until now, no effective cure for SARS has been introduced into the clinic, and the treatment of that disease is merely symptomatic. Viruses of this group are also responsible for serious diseases in animals. This fact is important not only in terms of the risk of transmission into human population (the SARS case), but also – in the case of farming animals – for economic reasons.
- **Potential antiviral agent:** modified natural polysaccharides (chitosan polymer).
- **Application:** treatment and prevention of viral infections caused by coronaviruses in humans, including respiratory diseases manifested by impaired respiratory function.
- **Key features:**
 - Development stage: preclinical phase.
 - IP status: several international patent application: EPO, USA, Canada, Japan, China, India (November, 2014).
 - Confirmed ability to efficient bind of coronaviruses and inhibit their replication *in vitro* and/or *ex vivo*.
 - Modified chitosan has antibacterial and antifungal activity, which is an additional advantage of the offered polymer.
 - The possibility to apply as a solution or spray administrated either topically to the upper respiratory tract (throat, nose, bronchial tree), orally in the case of gastrointestinal infections or intravenously for systemic therapy.

Licensor information

The **Jagiellonian University**, located in Kraków, Poland, is one of the oldest universities in Europe. The offered inventions have been developed by researchers of the Faculty of Chemistry and Faculty of Biochemistry, Biophysics and Biotechnology of the Jagiellonian University.

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