

Press Release

April 11, 2018

## New results from Enzymatica's *in vitro* study: ColdZyme also deactivates corona virus

Today Enzymatica announced the results of an *in vitro* study demonstrating the ability of ColdZyme® Mouth Spray to deactivate human corona virus – one of the most common cold virus families. Along with the *in vitro* results from a study published in the autumn of 2017<sup>1</sup>, ColdZyme has been shown to be able to deactivate over 90 % of the known viruses that cause colds.

The current results, which are being presented today at Ear-Nose-and-Throat days in Linköping<sup>2</sup>, show that ColdZyme deactivates human corona virus and reduces the cytopathic (cell damaging) effect by 99.9 % *in vitro*. The corona virus is potentially dangerous because in addition to the common cold, it also causes diseases such as SARS (*Severe acute respiratory syndrome*), and MERS (*Middle East respiratory syndrome*), which is a contagious pneumonia.

“Even if the current *in vitro* results cannot be directly translated into clinical efficacy, it is very interesting that ColdZyme is able to effectively deactivate the absolute majority of our most common cold viruses. These results help us to better understand ColdZyme's preventive effect and its ability to reduce the duration of colds,” says Fredrik Lindberg, CEO of Enzymatica.

The results regarding the corona virus complement previously published *in vitro* data, which showed that ColdZyme also deactivates four other common virus families that cause colds. Thus ColdZyme has been shown to be 91.7 % effective in deactivating rhinovirus type 1A , 92.8 % effective for rhinovirus type 42, 96.9 % for human influenza A virus H3N2, 99.9 % for RSV virus, 64.5 % effective for adenovirus type 2 and 99.9 % effective for human corona virus, without any cell-damaging effect. In summary, ColdZyme has been shown to be effective against more than 90 % of our most common cold viruses. All *in vitro* experiments were carried out by an independent, accredited and certified laboratory.

The *in vitro* study was based on standardized and validated methods developed to resemble the *in vivo* environment in the mouth and throat, where viruses attach, invade the cells and cause colds. ColdZyme, which consists of glycerol and trypsin, an enzyme found in Arctic cod, forms a barrier in the throat against the cold virus. ColdZyme's effect is believed to be due in part to the ability of trypsin to cleave proteins on the surface of the virus particles that are important for their ability to infect cells. This can prevent colds because the virus particles are unable to bind to receptors on the surface of the cells.

- 1) [Stefansson B, Gudmundsdottir A, Clarsund M \(2017\) A medical device forming a protective barrier that deactivates four major common cold viruses. Virol Res Rev 1: DOI: 10.15761/VRR.1000130](#)
- 2) Stefansson et al, ColdZyme forms a protective barrier in the throat that deactivates five major common cold viruses, Congress of the Swedish Association of Otolaryngology, 2018, see attached abstract och poster pdf.

The information in this press release is information that Enzymatica is obliged to make public pursuant to the EU Market Abuse Regulation. The information was submitted for publication, through the agency of the contact person set out above, at 8:45 a.m. on April 11, 2018.

**For more information, please contact:**

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**About Enzymatica AB**

Enzymatica AB is a Swedish life science company that develops and sells medical devices for infection-related diseases. The products are based on a barrier technology that includes marine enzymes. The company's first product is ColdZyme® Mouth Spray, which can prevent colds and reduce the duration of disease. The product has been launched in about ten markets. The strategy is to continue to grow by strengthening the Company's position in existing markets and expanding into new geographic markets through established partners. The company has its headquarters in Lund and is listed on Nasdaq First North. For more information, visit: [www.enzymatica.com](http://www.enzymatica.com).

Enzymatica's certified advisor is Erik Penser Bank.