Marinomed Biotech AG publishes new supporting data on the in vitro efficacy of Carragelose® against SARS-CoV-2

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Corporate News

Marinomed Biotech AG (VSE:MARI), a globally operating biopharmaceutical company, announced today that further data on the efficacy of Carragelose® in preventing SARS-CoV-2 infection in vitro have been published in the renowned peer-reviewed journal PLOS ONE and can be accessed on the journal's website: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0237480. The study conducted by Prof. Ulrich Schubert and his team at the Institute of Virology, Friedrich-Alexander University Erlangen-Nuremberg, Germany and Marinomed Biotech AG, Vienna, Austria, confirms previous studies showing effective inhibition of SARS-CoV-2 replication in vitro.

The PLOS ONE publication shows that the active ingredient Carragelose, the sulfated polymer iota-carrageenan, has antiviral activity against both wild-type SARS-CoV-2 and SARS-CoV-2 spike protein pseudotyped lentivirus, a harmless virus designed to look like and attach to cells like SARS-CoV-2 but which cannot cause COVID-19. Iota-carrageenan was able to effectively prevent cellular entry of the pseudotyped lentivirus. Three other sulfated polymers, kappa-carrageenan, lambda-carrageenan and fucoidan, were less efficacious, while polymers without sulfate groups like hydroxypropylmethylcellulose (HPMC) or carboxymethylcellulose (CMC) were ineffective. Wild-type SARS-CoV-2 was also effectively neutralized by iota-carrageenan in vitro at concentrations that are clinically relevant for the use of iota-carrageenan containing products: At a concentration of 3.5 µg / ml iota-carrageenan, a reduction of SARS-CoV-2 replication by more than 90 % was observed. The marketed nasal sprays have an iota-carrageenan concentration of 1.2 mg / ml, a more than 300-fold higher dose as shown to be effective in vitro.

"Our findings show very clearly that Carragelose can effectively neutralize SARS-CoV-2 in vitro, preventing the virus from infecting further cells," said Prof. Dr. Ulrich Schubert from the Institute of Virology, Friedrich-Alexander University Erlangen-Nuremberg, Germany and Marinomed's cooperation partner. "Similar in vitro results previously obtained with other respiratory viruses like Influenza Type A and older Coronaviruses were translated into clinical efficacy as shown in four clinical studies that confirmed a reduction of both duration and severeness of symptoms. We believe this will hold true also for SARS-CoV-2."

“Our results further substantiate that Carragelose can be an effective tool for the prevention or treatment of COVID-19. Currently, the clinical trials in Vienna and the UK on healthcare personnel make us confident to clinically confirm these encouraging findings. We expect these data within the first half of 2021,” said Dr. Eva Prieschl-Grassauer, Chief Scientific Officer at Marinomed and senior author of the publication. “In 2021, the COVID-19 pandemic continues to be a major health, social and economic burden, and new variants have been emerging that may render some already existing vaccines less effective. Carragelose is broadly active against various different respiratory viruses by forming a physical barrier on the nasal mucosa, which inactivates the viruses based on their positive surface charge. Given the broad antiviral efficacy and the physical mode of action, we are convinced that SARS-CoV-2 mutations are unlikely to have an impact on the antiviral efficacy of Carragelose.”

Medical associations have started to recognize the promising data that Carragelose may help prevent COVID-19. In its recommendation “Virucidal gargling and virucidal nasal spray”, the German Society for Hospital Hygiene (Deutsche Gesellschaft für Krankenhaushygiene e.V., DGKH) recommended the use of Carragelose-based nasal sprays for the prevention of SARS-CoV-2 infections in the general public. The recommendation is available online: https://dx.doi.org/10.3205/dgkh000373.

About Carragelose®:

Carragelose® is a sulfated polymer from red seaweed and a unique, broadly active anti-viral compound. It is known as a gentle yet effective and safe prevention and treatment against respiratory infections. Several clinical and preclinical studies have shown that Carragelose® forms a layer on the mucosa wrapping entering viruses, thereby inactivating them, and preventing them from infecting cells. Marinomed is holder of the IP rights and has licensed Carragelose® for marketing in Europe, parts of Asia, Canada, and Australia. For a full list of Marinomed’s portfolio of Carragelose®-containing nasal sprays and oral products, please visit https://www.carragelose.com/en/portfolio/launched-products, for a list of scientific publications on Carragelose®, https://www.carragelose.com/en/publications.

About Marinomed Biotech AG

Marinomed Biotech AG (Korneuburg, Austria) is a biopharmaceutical company listed on the Prime Market of the Vienna Stock Exchange. The company focuses on the development of innovative products based on two patent-protected technology platforms. The Marinosolv® technology platform increases the efficacy of hardly soluble compounds for the treatment of sensitive tissues such as eyes, nose, lung or gastrointestinal tract. The Carragelose® platform comprises innovative patent-protected products targeting viral infections of the respiratory tract and can reduce the risk of an infection with SARS-CoV-2. Carragelose® is used in nasal sprays, throat sprays and lozenges, which are sold via international partners in over 40

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For further inquiries contact:

Dr. Eva Prieschl-Grassauer
Chief Scientific Officer, Marinomed
Hovengasse 25, 2100 Korneuburg, Austria
T +43 2262 90300
E-mail: eva.prieschl@marinomed.com
http://www.marinomed.com

International Media Contact
MC Services AG
Dr. Brigitte Keller, Julia Hofmann
T +49 89 210228 0
UK: Shaun Brown
M: +44 7867 515 918
E-mail: marinomed@mc-services.eu

Media Contact Austria
Metrum Communications GmbH
Roland Mayrl
T +43 1 5046987-331
E-Mail: r.mayrl@metrum.at

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