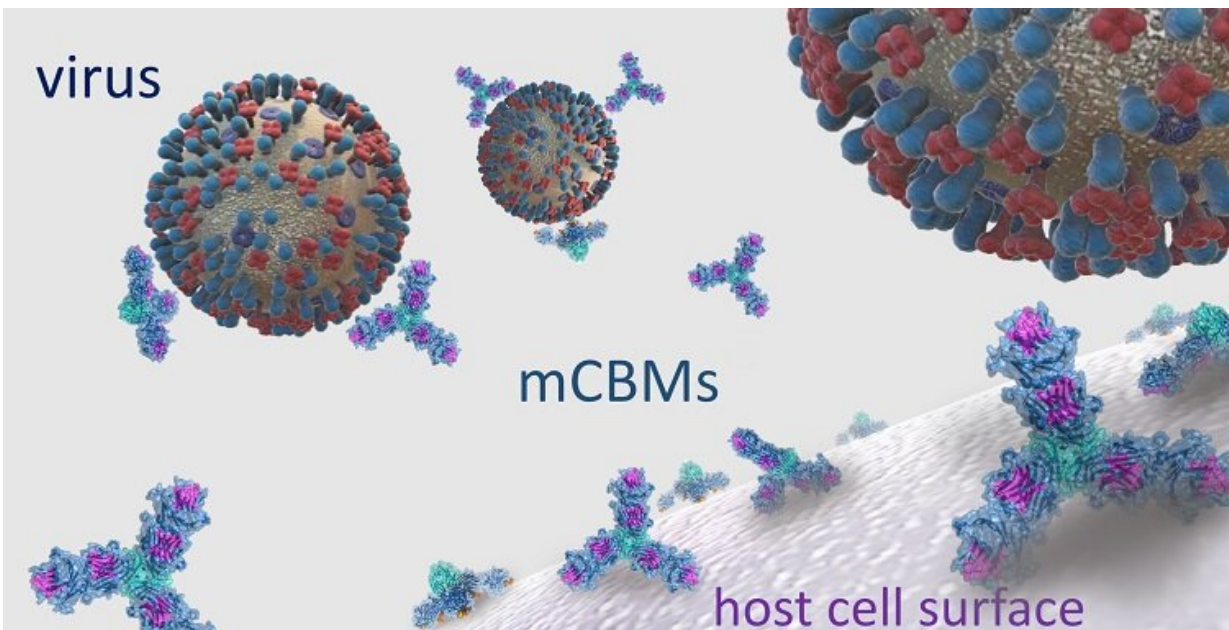


New Scottish drug shows promise in battle against COVID-19

April 29 2020



Credit: University of St Andrews

A new anti-viral drug developed by Pneumagen, a University of St Andrews spin out company, has had positive results in laboratory tests against COVID-19.

Pneumagen Ltd, a company focused on treating infectious disease and developing oncology treatments by targeting the human glycome, today (28 April 2020) announced results from three separate in vitro studies

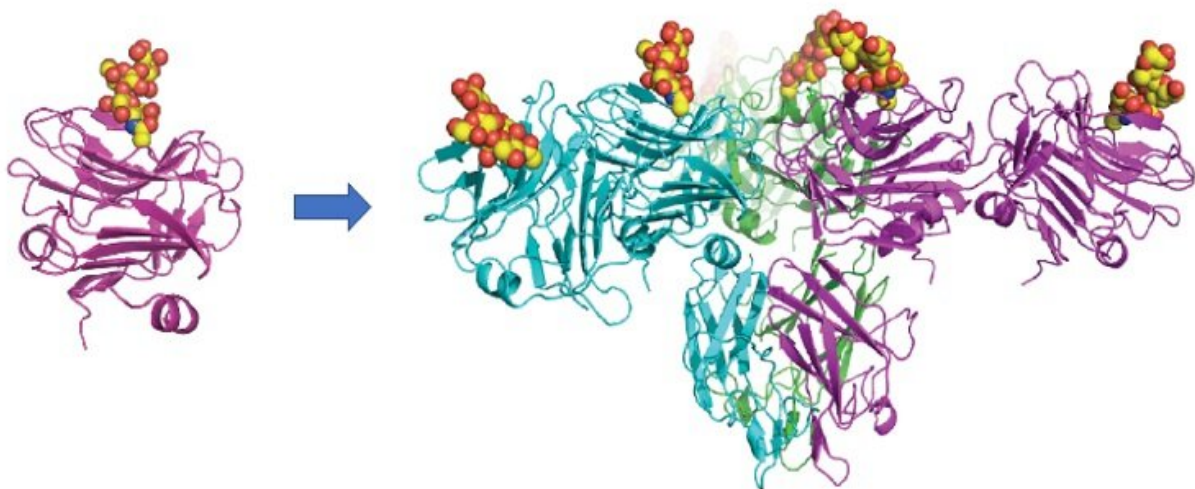
into preventing coronavirus infections, including SARS-CoV-2 infection, the cause of COVID-19, using Neumifil and other first-in-class multivalent Carbohydrate Binding Modules (mCBMs), generated using its proprietary GlycoTarge platform.

The successful studies involved both treating infection and blocking new infections.

Working closely with Public Health England's Porton facility, and separately the University of Glasgow's MRC Centre for Virus Research, Pneumagen has tested the activity of its mCBMs against coronaviruses, using plaque reduction assays.

At both Porton and the University of Glasgow, Pneumagen's mCBMs were found to reduce the number of SARS-CoV-2 plaques in these assays when the mCBMs were used in both prevention and treatment of infection.

Pneumagen now wants to begin clinical testing for the prevention and treatment of COVID-19.



Credit: University of St Andrews

Douglas Thomson, CEO of Pneumagen, said: "Today's positive results from in vitro studies of our mCBMs against coronaviruses show that glycan binding has the potential to prevent and treat [infection](#).

"This further supports the value of our universal therapeutic modality to block access to lung cells of SARS-CoV-2, as well as other viruses, that cause [respiratory tract infections](#), providing the potential for a pan-viral respiratory product. Our goal is now to rapidly begin clinical testing for the prevention and treatment of COVID-19."

Pneumagen's work on COVID-19 builds on the company's work with a different clinically relevant [coronavirus](#) that can cause the common cold where a plaque reduction assay also demonstrated antiviral activity for mCBMs.

Pneumagen's lead mCBM, Neumifil is already being developed for the universal treatment of respiratory tract infections (RTIs) including Influenza Virus (IFV) and Respiratory Syncytial Virus (RSV), and now coronaviruses. Neumifil's novel mechanism of action, masking glycan receptors in patients' airways thereby preventing the entry of the [virus](#), has the potential to revolutionise the treatment of RTIs by providing clinicians with the opportunity to offer patients total protection against any circulating viral strain.

Provided by University of St Andrews

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