



## **ILC Therapeutics announces 'significant' COVID-19 drug breakthrough**

**Glasgow, Scotland, United Kingdom, 6<sup>th</sup> October 2020:** ILC Therapeutics, a Scottish biotech company, has announced that its unique synthetic Interferon called Alfacyte™ is fifteen to twenty times more effective at preventing the spread of SARS-CoV-2 (the virus which causes COVID-19) in cell culture than other commercially-available Interferons such as Interferon alpha 2 and Interferon beta 1a. COVID-19 tries to slow down the body's innate Interferon response to viral infection and Alfacyte™ is designed to help accelerate this response and prevent disease progression.

Independent research at the University of St Andrews led by Dr Catherine Adamson, a specialist in viral diseases, demonstrated the superior effectiveness of Alfacyte™ in vitro against SARS-CoV-2.

Alfacyte™ is a synthetic molecule based on the human Alpha Interferons and was invented by Professor William Stimson, Founder and Chief Scientific Officer at ILC Therapeutics.

Dr Alan Walker, CEO of ILC Therapeutics, welcomed the results as a significant development in the fight against COVID-19: "This is a very positive development as the world prepares to face a second wave. Therapeutic interventions are crucial for us to tame COVID-19. The Innate Immune System represents an immunological "wall" against viral infection. If we can hold the virus at this "wall" long enough for the Adaptive Immune Response to get ready for battle, then COVID will not be able to progress into ARDS and cause systemic damage."

The Alpha Interferons are a family of 12 natural proteins which everyone produces. Thus far only one subtype is used therapeutically, the Interferon Alpha 2. Professor William H. Stimson has spent two decades studying all the subtypes and their effectiveness as immunoregulators and antivirals, not just for COVID-19 but for other coronavirus-based illnesses such as SARS or MERS. His work has led him to construct a new patented synthetic Alpha Interferon, called Alfacyte™, based on the most effective and powerful Alpha Interferon subtypes.

Professor Stimson, stated: "COVID-19 and other coronaviruses have spent a lot of evolutionary energy trying to protect themselves against the Interferon alpha because overcoming the Innate Immune System is their main concern. They attack by delaying the production of Interferon alpha and so break through the Innate Immune defensive wall before the Adaptive Immune System is prepared to fight them. Timing is everything and by delivering a powerful Interferon like Alfacyte™ to the airways using a nebuliser we hope to accelerate and support the Innate Immune defences and prevent viral infection spreading and worsening. As well as having direct anti-viral activity Alfacyte™ is a powerful stimulator of Natural Killer (NK) cells that play a critical role in defending against the spread of COVID-19. These properties make Alfacyte™ an extremely promising drug candidate for COVID-19 therapy."

The University of St Andrews' Dr Catherine Adamson, who oversaw the tests, said: "This is a hugely exciting development and it demonstrates that there is a significant difference in the bioactivity of Interferon subtypes against Coronaviruses. These differences may have important therapeutic implications for COVID-19."

ILC Therapeutics is in the process of conducting further testing of Alfacyte™ and hopes to proceed to clinical trials by next year.

**-ENDS-**

### **Notes to Editors**

For further information please contact Rebecca Durnin on [rebecca@mediahouse.co.uk](mailto:rebecca@mediahouse.co.uk) / 07801 821 556 or Ibrahim Khalil on [ibrahim@mediahouse.co.uk](mailto:ibrahim@mediahouse.co.uk) / 07943 759 042.

### **About ILC Therapeutics**

ILC Therapeutics Ltd is an early stage biotechnology company focused on modulating the Innate Immune System through the development of novel peptide therapeutics for the treatment of Cancer, Atopic Dermatitis, Psoriasis and Allergic Asthma amongst other conditions. More recently however, ILC Therapeutics has discovered that its ongoing research has potential to treat COVID-19.

Interest in NK cell therapy is exploding and NK cells are a type of Innate Lymphoid Cell 1 (ILC-1) modulated by alpha Interferons. ILC Therapeutics' hybrid, patented Interferon Alpha has been shown to have a powerful stimulatory effect on NK cells and this is critical to maintaining NK cell activity inside tumours where the cancer is trying to switch them off and escape destruction. ILC Therapeutics' Hybrid 1 has shown modulatory effects on tissue based ILC-2 networks (Atopic Dermatitis) and ILC-3 networks associated with Psoriasis. This work has now been re-focused to study the effects of Interferon alpha on COVID-19.

The company was founded by Prof. W. H. Stimson FRSE, who was the founder of the Department of Immunology at The University of Strathclyde. Bill has been involved in eight start-up/spin-out biotech companies. He has been a long-term consultant to five multinational companies including Akzo Nobel, Rhone-Poulenc and Johnson & Johnson. Bill has published 215 scientific papers and 25 patents and was involved in the use of the first human monoclonal antibodies for cancer therapy.

For more information on ILC Therapeutics, please visit: [www.ilctherapeutics.com](http://www.ilctherapeutics.com)

Follow ILC Therapeutics on LinkedIn: [www.linkedin.com/company/ilctherapeutics/](https://www.linkedin.com/company/ilctherapeutics/)