



# **Avalon GloboCare and University of Natural Resources and Life Sciences (BOKU) Co-develop Innovative In-Silico Technology, Enabling the Design and Synthesis of Novel Cell Membrane Receptor Targets for Cancer and Immune-Related Diseases**

- Avalon and research partner, University of Natural Resources and Life Sciences (BOKU), in Vienna, Austria, co-develop a novel technology to efficiently synthesize and study previously difficult to work with drug targets
- Technology will facilitate drug design for cancer and immune-related diseases
- Study describing the new cell-free, in-silico technology published in September 2021 issue of peer-reviewed journal *Membranes*

FREEHOLD, N.J., Oct. 07, 2021 (GLOBE NEWSWIRE) -- Avalon GloboCare Corp. (NASDAQ: AVCO) (Avalon or The Company), a clinical-stage global developer of cell-based technologies and therapeutics, today announced co-development of a novel, cell-free, in-silico system to facilitate the Company's drug development efforts, together with the Institute for Synthetic Bioarchitectures at the University of Natural Resources and Life Sciences (BOKU) in Vienna, Austria. A study of the new technology was featured in the September 2021 issue of *Membranes*, an international, peer-reviewed journal.

The new technology reveals that difficult-to-study cell membrane proteins can be efficiently expressed in a cell-free system, allowing for their evaluation as potentially druggable targets. The technology expands Avalon's ability to design and produce novel membrane proteins—including receptors found on the surface of immune cells and cancer cells that are important for cell signaling and diseases such as cancer—providing Avalon an efficient tool to screen and optimize potential therapeutic targets.

Proteins function within cells and are also present on cell surfaces, embedded within the cell's outer membrane. These membrane proteins include cell surface receptors that function in cell signaling and regulation of communication with other cells and tissues. These molecules are important drug targets and include receptors on immune cells such as T-cells for the development of cellular immunotherapies.

The researchers used computer-based models, developed at the University of Vienna, to identify factors that optimize the expression of membrane proteins in a cell-free, in-silico system, resulting in high protein yield. The study demonstrated the success of this method by showing the ability to manipulate and express a drug target membrane protein, a human voltage-dependent anion channel, at high yield.

The use of this novel technology can improve knowledge about receptors and other membrane proteins to better understand the biology of drug targets and to develop novel therapies, including immunotherapies for cancer.

“With this innovative in-silico approach co-developed with Avalon, we achieved a breakthrough in the design and optimization of the structure-function of membrane receptors to enhance our development of novel drug and cell-based therapeutics,” said Professor Eva-Kathrin Ehmöser, Director of the Institute for Synthetic Bioarchitectures, Department of BioNanoSciences, BOKU, a lead author of the study.

“Our partnership with BOKU researchers is yielding novel tools and discoveries that allow us to identify drug targets that have been traditionally out of reach due to the inability of existing technology to synthesize membrane proteins in a laboratory,” said David Jin, M.D., Ph.D., President and Chief Executive Officer of Avalon. “This approach will expand our capabilities and repertoire in designing novel targets for immuno-oncology and cellular medicine,” added Dr. Jin.

The new technology is a direct result of a collaboration between the Company and researchers at BOKU, Vienna, the University of Vienna, the Science for Life Laboratory within the Division of Nanobiotechnology at the KTH Royal Institute of Technology in Stockholm, Sweden and the Department of Biochemistry at the King Abdulaziz University in Jeddah, Saudi Arabia.

### **About Avalon GloboCare Corp.**

Avalon GloboCare Corp. (NASDAQ: AVCO) is a clinical-stage, vertically integrated, leading CellTech bio-developer dedicated to advancing and empowering innovative, transformative immune effector cell therapy, exosome technology, as well as COVID-19 related diagnostics and therapeutics. Avalon also provides strategic advisory and outsourcing services to facilitate and enhance its clients' growth and development, as well as competitiveness in healthcare and CellTech industry markets. Through its subsidiary structure with unique integration of verticals from innovative R&D to automated bioproduction and accelerated clinical development, Avalon is establishing a leading role in the fields of cellular immunotherapy (including CAR-T/NK), exosome technology (ACTEX™), and regenerative therapeutics. For more information about Avalon GloboCare, please visit [www.avalon-globocare.com](http://www.avalon-globocare.com).

For the latest updates on Avalon GloboCare's developments, please follow our twitter at @avalongc\_avco

### **Forward-Looking Statements**

Certain statements contained in this press release may constitute "forward-looking statements." Forward-looking statements provide current expectations of future events based on certain assumptions and include any statement that does not directly relate to any historical or current fact. Actual results may differ materially from those indicated by such

forward-looking statements as a result of various important factors as disclosed in our filings with the Securities and Exchange Commission located at their website (<http://www.sec.gov>). In addition to these factors, actual future performance, outcomes, and results may differ materially because of more general factors including (without limitation) general industry and market conditions and growth rates, economic conditions, and governmental and public policy changes. The forward-looking statements included in this press release represent the Company's views as of the date of this press release and these views could change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of the press release.

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