

June 30, 2022



Avalon GloboCare Announces New Study Featuring AI-Enhanced Protein Design Technology Targeting Glucose Transporter Against Cancer

FREEHOLD, N.J., June 30, 2022 (GLOBE NEWSWIRE) -- **Avalon GloboCare Corp. (NASDAQ: AVCO)**, a leading global developer of innovative cell-based technologies and therapeutics, today announced a new study applying artificial intelligence (AI) enhanced protein design “QTY Code” technology. The method is expected to accelerate development of therapeutic monoclonal antibodies to treat cancer.

The research demonstrates a novel method for quickly predicting the design of so-called “water-loving” or hydrophilic variant structures of the 14 glucose transport membrane proteins in cells, which allows researchers to study the proteins more easily in water. Glucose transport membrane proteins are deregulated in many tumor types and are a potentially important target for cancer therapy. The study was published on June 27, 2022, in *QRB Discovery*, a peer-reviewed, research journal of biological function, structure and mechanism.

The “QTY Code” breakthrough technology, developed by Avalon and the laboratory of Dr. Shuguang Zhang, Ph.D., of MIT’s Media lab in Boston, MA, is a protein-design platform that can turn water-insoluble transmembrane receptor proteins into water-soluble proteins, enabling their use in many clinical applications, including drug development.

A team of scientists led by Dr. Zhang applied the QTY code to the 14 glucose transport membrane proteins that transport sugar to cells. They used Google’s AlphaFold2, a DeepMind AI program, which can accurately and quickly predict how proteins fold. Dr. Zhang and his team used the QTY code with the open-source AlphaFold2 to predict the structures of these proteins in both their natural hydrophobic shapes and their QTY-code altered water-soluble shapes.

“This new publication with our collaborator, Professor Zhang from MIT, using the QTY code has demonstrated a novel method for quickly predicting the structures of water-soluble versions of glucose transporter proteins, which are proteins important in cancer,” said David Jin, M.D., Ph.D., President and Chief Executive Officer of Avalon. “This is an important discovery as these proteins are difficult to study and so far, poorly understood. These transport proteins, especially those that regulate glucose, play a vital role in the growth of cancer. We believe our method will accelerate our understanding of these proteins and the development of antibodies against them to treat cancer.”

“Using AlphaFold2, we were able to obtain structural information on soluble versions of these transport proteins within hours, whereas in the past it took four to five weeks using a high-speed computer to obtain the protein structures. We believe that using the QTY code method to study water soluble variants of these transmembrane proteins and other similar proteins is likely to have a positive impact in the field of biotechnology and cancer biology,” concluded Dr. Jin.

Authors of the QRB Discovery paper include Dr. Zhang and Eva Smorodina, an undergraduate intern-student in structural biology in the Greiff Lab at the University of Oslo; Drs. Fei Tao and Rui Qing of the Shanghai Jiaotong University (Dr. Qing was previously a postdoctoral researcher in the MIT Media Lab and later a research scientist at the Koch Institute for Integrative Cancer Research at MIT); Dr. Steve Yang, an MIT alumnus and now at PT Metiska Farma in Indonesia; and Dr. David Jin, M.D., Ph.D. of Avalon GloboCare Corp., whose collaboration helped drive Dr. Zhang’s research in applying the QTY code to the study of cancer cells. Avalon GloboCare funded the research.

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.

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.

Contact Information:

Avalon GloboCare Corp.
4400 Route 9, Suite 3100
Freehold, NJ 07728
PR@Avalon-GloboCare.com

Investor Relations:

Crescendo Communications, LLC
Tel: (212) 671-1020 Ext. 304
avco@crescendo-ir.com



Source: Avalon GloboCare Corp.