

Avalon GloboCare Achieves Milestones in Advancing Novel Intranasal and Oral COVID-19 Vaccine Candidate

- Avalon forms strategic partnership with the University of Natural Resources and Life Sciences (BOKU) in Vienna, Austria and the nanotechnology laboratory of Professor Uwe B. Sleytr on a novel S-layer SARS-CoV-2 (COVID-19) vaccine
- Avalon and BOKU have already begun to develop a novel SARS-CoV-2 vaccine that can be administered by an intranasal or oral route
- Avalon and Professor Sleytr of BOKU have jointly filed a USPTO provisional patent application on a novel design and implementation of S-layer structure technology for vaccine development

FREEHOLD, N.J., June 25, 2020 (GLOBE NEWSWIRE) -- Avalon GloboCare Corp. (NASDAQ: AVCO) (Avalon or The Company), a clinical-stage global developer of cell-based technologies and therapeutics, announced today a strategic partnership with the University of Natural Resources and Life Sciences (BOKU) in Vienna, Austria to develop an S-layer vaccine that can be administered by an intranasal or oral route against SARS-CoV-2, the novel coronavirus that causes COVID-19 disease.

The principal investigator of the co-development project is BOKU's Professor Uwe B. Sleytr, an eminent member of the Austrian Academy of Sciences. Professor Sleytr is a pioneer of applied surface layer ("S-layer") nanotechnology, based on the repetitive protein structures that make up the outer surface of microbial cells. Dr. Eva-Kathrin Ehmoser, Professor and Head of the Institute for Synthetic Bioarchitectures at BOKU, serves as the co-principal investigator of the COVID-19 vaccine program.

Given the continued rise of COVID-19 cases around the world, Avalon and the BOKU scientists are working closely to co-develop a novel SARS-CoV-2 vaccine that would induce a sufficient immune response to prevent a severe form of COVID-19, which causes morbidity and often mortality. This vaccine strategy has the dual advantages of ease of manufacturing and delivery. The candidate vaccine is derived from a fusion of an S-layer viral particle mimic with the SARS-CoV-2 spike protein and could be delivered non-invasively via the nasal or oral passageways, rather than a needle-based injection into the muscle or under the skin. The S-layer protein-based vaccine is expected to both decrease the severity of a SARS-CoV-2 infection—preventing the more severe respiratory inflammation and organ damage seen in many COVID-19 patients—and build immunity against the virus.

This strategic partnership with BOKU leverages Avalon's expertise and resources in biomanufacturing infrastructure and clinical study implementation with the scientific capabilities

and deep experience of the laboratories of Professors Sleytr and Ehmoser at BOKU. Professors Sleytr and Ehmoser have already made substantial progress by developing the proprietary techniques necessary to synthesize conjugate vaccines consisting of an S-layer artificial viral envelope linked to a viral antigen. As a proof of concept, the investigators have also shown that these types of protein conjugate vaccine candidates are able to elicit immune-protective antibody responses.

Avalon and Professor Sleytr have jointly filed a provisional patent application with the U.S. Patent and Trademark Office (USPTO) pertaining to the nanoparticle S-layer based vaccine against SARS-CoV-2.

The research is part of an ongoing and broader collaboration between Avalon and BOKU that will utilize S-layer technology to accelerate additional vaccine programs for other respiratory infections including different strains of the flu (influenza A/B), respiratory syncytial virus (RSV), and other viruses. As part of the partnership, Avalon is also actively exploring other practical uses of S-layer technology including targeted drug delivery, diagnostic devices, and therapeutic applications.

"We are encouraged by the progress we have made so far to develop a novel COVID-19 vaccine during this unprecedented world-wide health crisis," said David Jin, M.D., Ph.D., President and Chief Executive Officer of Avalon GloboCare. "We are working swiftly and diligently with BOKU to complete the laboratory testing and characterization of the S-layer fusion protein SARS-CoV-2 vaccine candidate. We believe that our novel vaccine approach has the potential to be effective. Importantly, this vaccine candidate could be manufactured and delivered more rapidly compared to traditional vaccines, providing access and immunization to a larger population of people around the globe to help combat the COVID-19 pandemic."

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 (ACTEXTM), and regenerative therapeutics. For more information about Avalon GloboCare, please visit www.avalon-globocare.com.

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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