MDimune’s 2021 BioDrone® Award Nominations: Research Grant Awarded to NUS Pharmacy Research Team

SEONGDONG-GU, SEOUL, SOUTH KOREA, December 27, 2021 /EINPresswire.com/ -- MDimune Inc., a biotech company developing BioDrone® platform technology based on cell-derived vesicles (CDVs), has announced the finalists of the research-funded project; the 2021 BioDrone® Award.

Among participants, Assoc. Prof. Giorgia Pastorin’s BioNanoTechnology Research Group at the National University of Singapore’s Department of Pharmacy (NUS Pharmacy) was nominated as the finalist of the program.

MDimune and NUS Pharmacy will exchange their expertise and make joint efforts to advance technology for the treatment of cardiovascular diseases using stem cell-derived CDVs. Through this research collaboration driven by leaders in the extracellular vesicle space, both MDimune and NUS Pharmacy will work together to bring disruptive therapeutic treatments to patients with highly unmet needs due to the lack of treatment options for myocardial diseases at the point of care.

Recently, Extracellular Vesicles (EVs) secreted by mesenchymal stem cells (MSCs), adipose-derived stem cells (ADSCs), and pluripotent stem cells (PSCs) have shown their therapeutic potential in reducing infarct size in myocardial I/R injury. This is believed to rely on EVs’ ability to signal and transfer biological cargos (proteins, lipids, and nucleic acids) to neighboring cells and mediate phenotypic changes in the recipient cells.

However, the commercial challenge is to meet clinical demand as the scalability of EVs is severely limited by its secretion process which often requires multiple days in addition its isolation and purification procedure.

Hence, CDVs have emerged as a promising alternative given their ability to overcome the low production yield and time-consuming process of naturally secreted EVs.

“Assoc. Prof. Giorgia Pastorin's team has been leading promising progress in the field of nanomaterials for biomedical applications including cell-derived nanovesicles (CDNs). We are very pleased to announce this outstanding collaboration with NUS Pharmacy,” said Shingyu Bae, CEO. “We will continue to focus our efforts to actively invest in the development of innovative

therapeutics through open innovation-based partnerships with academic and industrial partners to maximize the potential of our BioDrone® platform technology one step closer commercialization."

Assoc. Prof. Pastorin from NUS Pharmacy said, "We look forward to working with MDimune to translate research into clinically relevant applications."

MDimune Overview
Founded in 2015, MDimune has been dedicated to the development of a next generation drug delivery system (DDS) known as the BioDrone® Platform. The company aims to provide a new and flexible modality to generate innovative therapeutics and repurpose existing drugs for increased safety and efficacy through cell-derived vesicles (CDVs). The BioDrone® platform technology is patented in the US, Europe, China, Japan, and Korea. MDimune actively pursues business partnerships with biotech, pharma, academia, and hospitals to further expand its platform applications.

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