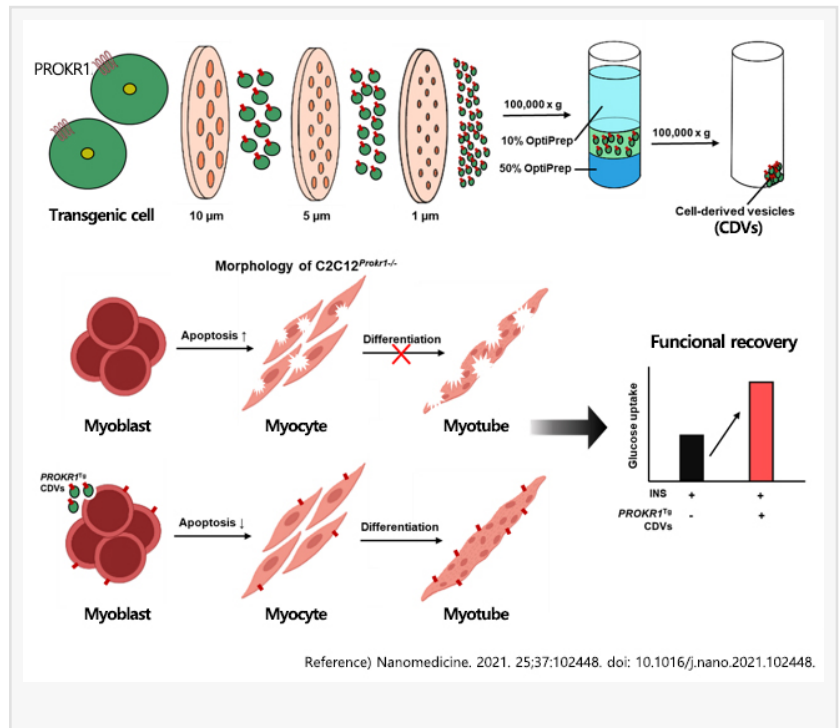


Successful demonstration of BioDrone® platform-based drug delivery to the Prokr1-deficient C2C12 myoblasts

SEONGDONG-GU, SEOUL, SOUTH KOREA, September 13, 2021 /EINPresswire.com/ -- MDimune Inc., a leading cell-derived vesicles (CDVs) company in South Korea has announced the outcomes of the research collaboration with Prof. Joonghoon Park's team at Seoul National University. The paper published in *Nanomedicine: Nanotechnology, Biology and Medicine* under the title "PROKR1 delivery by cell-derived vesicles restores the myogenic potential of Prokr1-deficient C2C12 myoblasts)", confirms that CDVs enriched with PROKR1 (Prokineticin receptor 1) protein successfully delivered them to muscle protein-deficient tissues, demonstrating significant muscle differentiation and efficacy of MDimune's BioDrone® Platform.



PROKR1 is a human protein responsible for muscle, angiogenesis, and proliferation of adipocytes. MDimune and prof. Park's team at Seoul National University managed to produce PROKR1 overexpressing stable cell line for the production of CDVs with inherited properties. Such CDVs were found to be accumulating in myoblast cells deficient of the functional protein; thus, confirming the therapeutic potentials of CDVs as the next-generation drug delivery platform.

MDimune's BioDrone® Platform is a cutting-edge targeted drug delivery system (DDS) that relies on human-sourced CDVs; which are nanosized vesicles that can be obtained from various human cells by using the proprietary extrusion technology. Having demonstrated an exceptional production yield compared to naturally secreted extracellular vesicles (EVs), CDVs are emerging as the ideal drug carrier showing promising cellular uptake data. The versatility of the platform allows further engineering to promote regeneration, inflammation, antitumoral and also as a

novel therapeutic for debilitating diseases.

Seung Wook Oh, Chief Scientific Officer of MDimune added, "The results of this study demonstrated successful targeting towards various tissues using CDVs engineered through our BioDrone® Platform. We will continue our best efforts to incorporate similar strategies to further expand tissue targets to various tumors as well as different regions in the central nervous system.

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