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ASIA EDITION

CartiHeal publishes an in-vitro study of Agili-C implant

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CartiHeal, a privately-held medical device company with headquarters in Israel, develops proprietary implants for the treatment of cartilage and osteochondral defects in traumatic and osteoarthritic joints.

CartiHeal, developer of Agili-C, a proprietary implant for the treatment of osteochondral and chondral defects has announced the publication of an *in-vitro* study demonstrating that the Agili-C implant enhances osteogenic differentiation of human bone marrow-derived mesenchymal stem cells.

The study, published in Differentiation Journal – 107 (2019) 24-34, was led by Prof. László Hangody and his scientists at the Department of Anatomy, Histology and Embryology at the University of Debrecen, Hungary.

The goal of the study was to investigate the mechanisms induced by the bone phase of the Agili-C implant on the osteogenic differentiation of Bone Marrow-derived Mesenchymal Stem Cells (MSCs) when cultured under differentiation-inducing conditions.

Study results demonstrated that the bone phase of the bi-phasic aragonite-based scaffold supports osteogenic differentiation and enhanced proliferation of bone marrow-derived MSCs at both the molecular and histological levels. The scaffold was colonized by differentiating MSCs, suggesting its suitability for incorporation into bone voids to accelerate bone healing, remodeling and regeneration. The mechanism of osteogenic differentiation was found to involve scaffold surface modification with de-novo production of calcium phosphate deposits. This novel coral-based scaffold may promote the rapid formation of high-quality bone during the repair of osteochondral lesions.

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In the United States, the Agili-C implant is not available for sale – it is an investigational device limited for use in the IDE study.