

Strong CERAMENT data published in Science Advances

Lund, Sweden, 15.00 CET, Nov 30, 2020 BONESUPPORT[™], an emerging leader in orthobiologics for the management of bone injuries, today announced that new preclinical data has been published in one of the highest ranked research journals, Science Advances. The data provides evidence that a combination of CERAMENT[®] with a low dose of bone morphogenic protein-2 and zoledronic acid can completely heal a large segmental bone defect in an animal model.

The publication¹ is the result of an extensive collaborative work between two research groups from Lund University, Sweden and University Hospital Carl Gustav Carus/TU Dresden, Germany. The group used a tissue engineering and regenerative medicine (TERM) approach to heal a large segmental bone defect without transplanting bone.

Through radiographic, biomechanical and histological results the publication confirms complete segmental bone defect healing by a combination of CERAMENT with the anti-osteoporosis drug, zoledronic acid, and a bone active protein, bone morphogenic protein-2 (BMP-2).

"With the new material, we were capable of biologically orchestrating the natural steps of bone regeneration," said lead author MD Stefan Zwingenberger at University Hospital / Carl Gustav Carus TU Dresden, Germany.

"Our findings have direct and important clinical implications and could provide orthopedic surgeons with off-the-shelf alternatives for reconstruction of large bone defects and in spinal fusion", said PhD Deepak Raina at Lund University.

The Lund group with senior author professor Lars Lidgren has been working on the combination of CERAMENT with zoledronic acid and BMP-2 for several years. In a preclinical study² in 2019 the group showed that the addition of zoledronic acid to CERAMENT can increase bone volume and improve screw implant anchorage. The new publication shows that the TERM approach with CERAMENT is also valid for reconstruction of large segmental bone defects.

BONESUPPORT's clinical development program focuses on further developing CERAMENT's properties, broadening clinical application areas and utilizing CERAMENT's unique drug-releasing properties through the development of combination products that promote bone healing.

- 1. Raina et al. Science Advances 27 Nov 2020:Vol. 6, no. 48, eabc1779 DOI: 10.1126/sciadv.abc1779
- 2. Raina et al. Acta Biomaterialia (2019), doi: https://doi.org/10.1016/j.actbio.2019.07.009

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About BONESUPPORT™

BONESUPPORT (Nasdaq Stockholm: BONEX) develops and commercializes innovative injectable bio-ceramic bone graft substitutes that remodel to the patient's own bone and have the capability of eluting drugs. BONESUPPORT's bone graft substitutes are based on the patented technology platform <u>CERAMENT</u>. The company is conducting several clinical studies to further demonstrate the clinical and health economic benefits that its products deliver. The company is based in Lund, Sweden, and the net sales amounted to SEK 155 million in 2019. Please visit <u>www.bonesupport.com</u> for more information.

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