Gosselies, Belgium, 5 January 2015 - BONE THERAPEUTICS, the regenerative therapy company addressing unmet medical needs in the fields of fracture repair and bone fracture prevention, today announces that it has begun a new research project to investigate novel combined osteoblastic cell-matrix products for the treatment of large bone defects. The government of the Walloon Region has granted the Company €1 million of non-dilutive funding, in the form of recoverable cash advances, to finance this project.

In the project entitled “MXB Bioprinting”, Bone Therapeutics will combine its allogeneic [1] bone-forming (osteoblastic) cells within a 3-D bioprinted scaffold to treat large bone defects [2] resulting from trauma, bone disease or surgical procedures such as bone metastasis resection. This innovative approach represents a compelling alternative to bone autograft, the current standard-of-care for large bone defects, which is associated with significant morbidities.

The cell-matrix scaffold will be tailored to the size and form of the bone defect and will be designed to mimic the natural bone in terms of shape, structure and biomechanical properties. Once implanted, the 3-D patient-tailored matrix is intended to be progressively replaced by natural bone tissue, produced by the off-the-shelf osteoblastic cells as well as by the ones from the patient that will have been recruited at the site. Furthermore, as achieving adequate vascularization can be problematic due to the size of these defects, the product is designed to mitigate against this risk. The cells in the matrix will also be designed to stimulate the formation of new blood vessels by releasing factors that recruit endothelial cells (which are involved in the formation of blood vessels) to the defect site.

Enrico Bastianelli, Chief Executive Officer of Bone Therapeutics commented: “This novel approach utilising our allogeneic bone-forming cells within a precisely patient tailored 3-D bioprinted structure could herald a new and highly effective treatment for large bone defects and success in a field where regenerative medicine was thought to be untenable. We are grateful to the Walloon region in supporting this important project.”