

Tissue-engineered model developed to study bone-invading tumor

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Researchers have used tissue engineering to create models for studying the bone-destroying activity of tumors such as the aggressive pediatric cancer Ewing's sarcoma. A new 3-dimensional, living model of the osteolytic process and bone remodeling, which can serve a valuable tool for exploring disease mechanisms and the effectiveness of potential treatments, is described in *Tissue Engineering, Part C, Methods*.

In the article entitled "Tissue-Engineered Model of Human Osteolytic Bone Tumor," Gordana Vunjak-Novakovic and coauthors from

Columbia University, New York, NY and Politecnico di Milano, Italy, present the methods used to bioengineer a living Ewing's sarcoma model that includes both osteoclasts and osteoblasts in a controllable biomimetic environment. The researchers demonstrate the usefulness of the model for testing anti-osteolytic drugs.

"There is an urgent need for the development of human-like tumor models. This article is an excellent example of the progress being made," says Methods Co-Editor-in-Chief John A. Jansen, DDS, PhD, Professor and Head, Department of Biomaterials, Radboud University Medical Center, The Netherlands.

More information: Aranzazu Villasante et al, Tissue-Engineered Model of Human Osteolytic Bone Tumor, *Tissue Engineering Part C: Methods* (2017). [DOI: 10.1089/ten.tec.2016.0371](https://doi.org/10.1089/ten.tec.2016.0371)

Provided by Mary Ann Liebert, Inc

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