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Hybrid Nanostuctured Hydrogels: Bone regeneration using multifunctional injectable hydrogels (REBONE)

The major objective of the ReBone project is the development of superior biomaterials and therapeutics for osteoregenerative medicine, in order to address the growing cumulative stress on the skeletal system due to the increase in life expectancy. We will develop injectable hydrogels incorporating self-assembled nanogels for the delivery of non-hydrophilic pharmaceuticals. The hybrid hydrogels will also provide stability to Bonelike graft granules and entrap mesenchymal stem cells. Such a system will result in a minimal invasive surgical procedure with decreased patient morbidity, lower risk of infection and reduced scar formation.

REBONE

