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IIT Kanpur signs MoU with Ortho Regenics

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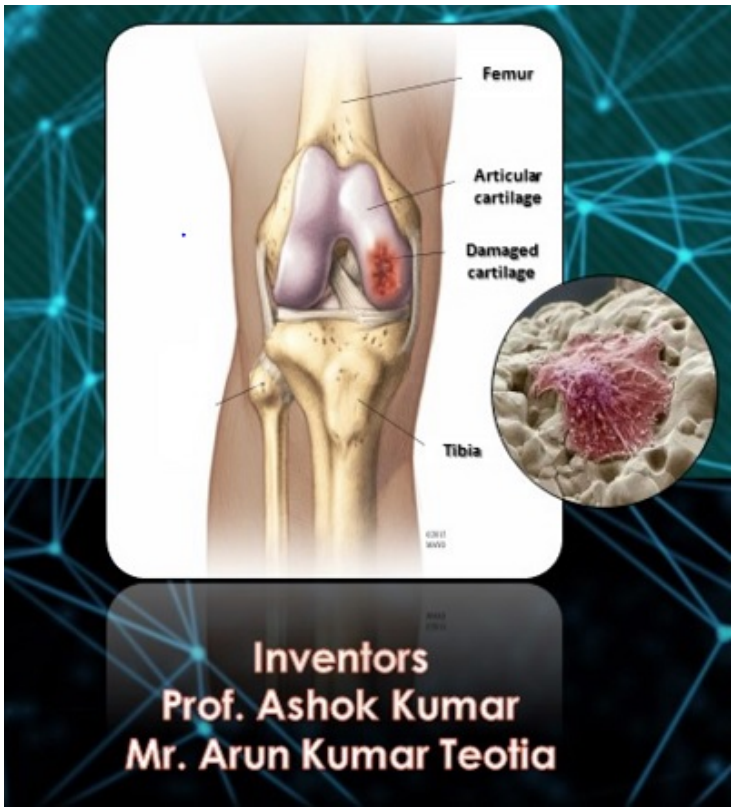
To transfer a technology that acts as a carrier for bone active biomolecules in bone regeneration



The Indian Institute of Technology (IIT) Kanpur has transferred a bone regeneration technology to Ortho Regenics. Titled ' Nano-Hydroxyapatite based porous polymer composite scaffolds for bioactive molecule delivery in musculoskeletal regeneration,' the technology has been developed by Prof Ashok Kumar and Arun Kumar Teotia from the Department of Biological Sciences and Bioengineering at IIT Kanpur.

It has been licensed to overcome the problems related to bone and joint disorders, capable of biocompatible bone regeneration.

The invention can act as a carrier for bone active biomolecules, delivering them directly to the implant site. The novel material is biodegradable and has osteoinductive (bone healing process) and osteopromotive (material for new bone growth) properties for bone regeneration. They are highly biocompatible resulting in good cell material interaction with osteoblast cells (cells responsible for mineralisation of bone during bone formation and bone remodelling), exhibiting high mechanical strength and interaction between the polymer network and the solvent.

The technology provides a collagen-nano-hydroxyapatite composite macroporous gel, which is a potential approach for the reconstruction of irregular bone defects and dental applications as well. Hence, the primary objective of this invention is to overcome the drawbacks of alternative remedies.