



The Regenerative Engineering of Knee: From Biomaterials to Applications

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Osteoarthritis (OA) is an important cause of disability, representing a significant individual and socioeconomic burden worldwide and, thus, a great challenge for clinicians and researchers in an aging society, with rising levels of obesity. The knee is the mainly affected joint; injuries to articular cartilage and menisci can lead to progressive cartilage degeneration up to OA.

To date, the currently available surgical approaches for cartilage repair (i.e., bone marrow stimulation, grafting, and cell-based techniques for articular cartilage repair) and meniscus reconstruction (i.e., meniscal tear reduction, allografts, implants of synthetic prosthesis) are mainly able to guarantee only short-term relief of symptoms; tissue engineering techniques together with vanguard 3D printing technologies could provide alternative customizable treatment strategies in OA in an era of increasingly personalized medical care.





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Message from the Editor-in-Chief

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