

Special Issue

The Regenerative Engineering of Knee: From Biomaterials to Applications

Message from the Guest Editor

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.

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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