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**Mechanically-enhanced polysaccharide-based scaffolds for tissue
engineering of soft tissues**

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ABSTRACT

Collagen-based materials are probably among the most used class of biomaterials in tissue engineering and regenerative medicine. Although collagen is often privileged for providing a suitable substrate on which cells can be cultured or a matrix in which cells can be dispersed, its mechanical properties represent a major limitation for clinical translation and even for handling of the obtained regenerated tissue. In this work, the combination of polysaccharides chitosan (Ch) and xanthan gum (X) was investigated as an alternative for scaffolds for soft tissue engineering. Moreover, in an attempt to reach a compromise between obtaining highly porous biomaterials while maintaining appropriate mechanical properties, a

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