عنوان فارسی مقاله:
استفاده از پلیمرهای طبیعی در مهندسی بافت: تمرکز بر روی ماتریکس آنالوگ خارج از سلول الکتروریسی شده

عنوان انگلیسی مقاله:
The Use of Natural Polymers in Tissue Engineering:
A Focus on Electrospun Extracellular Matrix Analogues

توجه!
این فایل تنها قسمتی از ترجمه میباشد. برای تهیه مقاله ترجمه شده کامل با فرمت ورد (قابل ویرایش) همراه با نسخه انگلیسی مقاله، اینجا کلیک نمایید.
4. Conclusions

While many obstacles remain in the creation of the ideal ECM analogue structure, the capability to electrospin the natural polymers found so prevalently in the native architecture has yielded promising results. The inherent bioactivity of these proteins, combined with the nanoscale fiber producing potential of the electrospinning process, has proven conducive to cellular adhesion, proliferation, migration, and differentiation. The mechanical properties of these electrospun biomimicking scaffolds, at times supplemented by synthetic polymers, have demonstrated mechanical properties capable of replicating those of an array of native tissues. Additionally, preliminary in vivo studies with electrospun natural polymer structures have proven the scaffolds to be adequately remodeled and integrated with native tissue. With the diversity of the native ECM, it is highly unlikely that a single processing technique or material will come to the forefront as the tissue engineering scaffold of choice, however the adaptability of the electrospinning process and its ability to create nanoscale fibers from the natural polymers found so prevalently in the native architecture holds great potential.