

HIGHLIGHT

Vienna,
June 30, 2014

New electrospun materials were characterized for adipose tissue generation

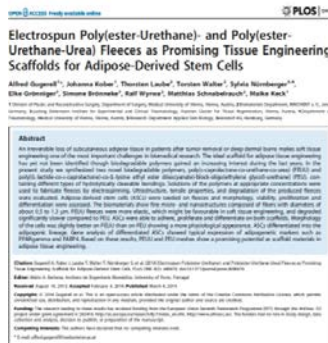


Figure 1: Results were published in the scientific journal PLOS ONE

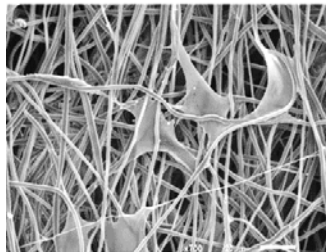


Figure 2: Ultrastructure of cells on scaffold PEUU

In the present study we synthesized two novel biodegradable polymers, poly(ϵ -caprolactone-co-urethane-co-urea) (PEUU) and poly[(L-lactide-co- ϵ -caprolactone)-co-(L-lysineethyl ester diisocyanate)-block-oligo(ethylene glycol)-urethane] (PEU), containing different types of hydrolytically cleavable bondings. Electrospun meshes made of these polymers were tested for cell compatibility with adipose-derived stem cells.

We could show that PEUU and PEU meshes show a promising potential as scaffold materials in adipose tissue engineering.

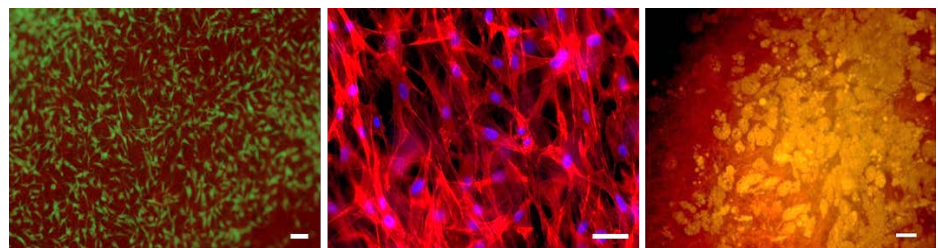


Figure 3: Viability, morphology and adipogenesis of adipose-derived stem cells on electrospun scaffolds

All results, more images, a concrete method description and more background to this study can be found here:

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0090676>

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