3D Biomaterial Microarrays for Regenerative Medicine - DTU Orbit (12/01/2019)

3D Biomaterial Microarrays for Regenerative Medicine: Current State-of-the-Art, Emerging Directions and Future Trends

Three dimensional (3D) biomaterial microarrays hold enormous promise for regenerative medicine because of their ability to accelerate the design and fabrication of biomimetic materials. Such tissue-like biomaterials can provide an appropriate microenvironment for stimulating and controlling stem cell differentiation into tissue-specific lineages. The use of 3D biomaterial microarrays can, if optimized correctly, result in a more than 1000-fold reduction in biomaterials and cells consumption when engineering optimal materials combinations, which makes these miniaturized systems very attractive for tissue engineering and drug screening applications.

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