Promoting the Clinical Relevance of 3D Bioprinting

This thesis focuses on the development of methodologies enabling the reconstruction of autologous, functional, and long-term-stable cartilage-like tissue using 3D bioprinting technology and animal experiments. The stability, resilience, and in vivo viability of the printed cells and tissue vascularization, as well as the observed immunogenicity and safety, represent the main issues evaluated and discussed in this thesis. Furthermore, the mechanical properties of the applied biomaterials are evaluated in detail.

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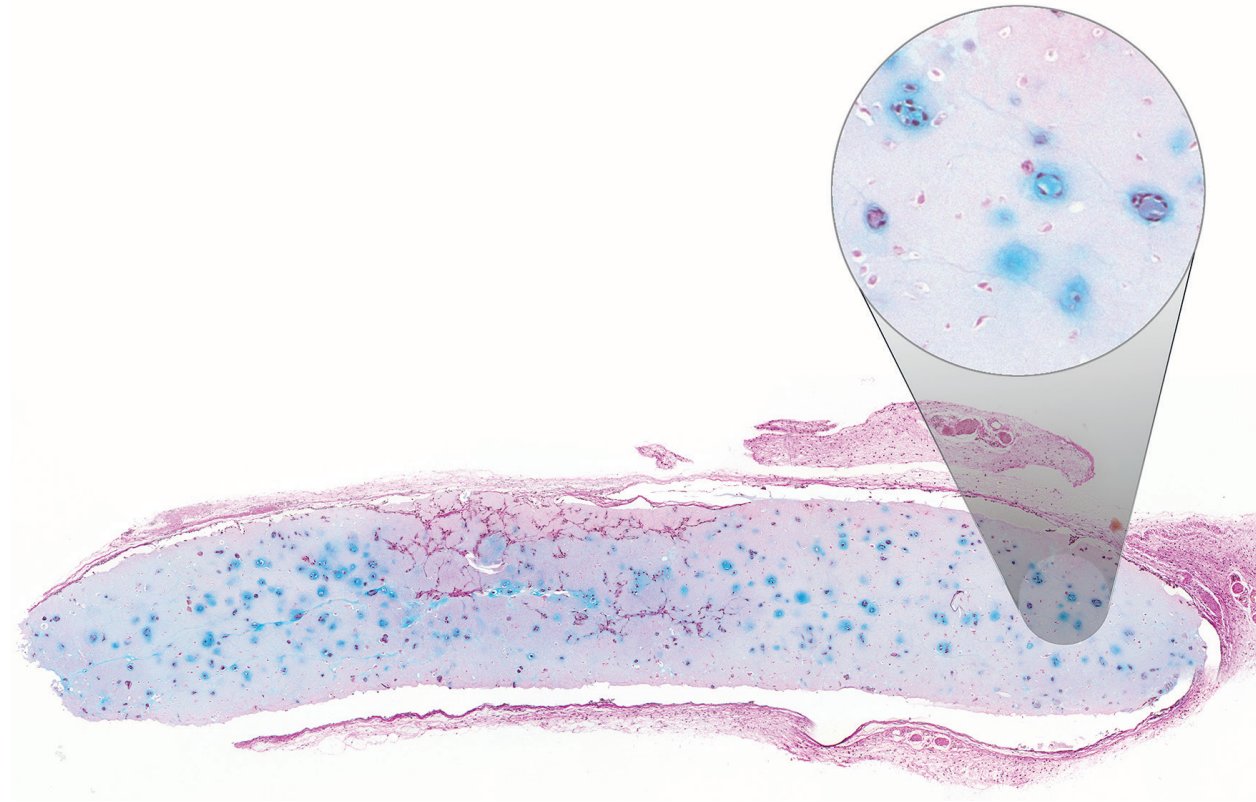

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