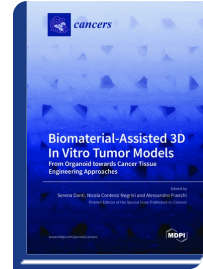*Special Issue Reprint*

Biomaterial-Assisted 3D In Vitro Tumor Models: From Organoid towards Cancer Tissue Engineering Approaches

www.mdpi.com/books/reprint/6935

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This reprint focuses on fundamental and applied research involving the combination of biomaterials and cancer cells to develop a three-dimensional (3D) tumor microenvironment in vitro, in which carcinogenesis mechanisms can be studied and therapies can be screened. Such models are becoming quite popular within the bioengineering community; thus, many technologies are being tested to obtain the best scaffold for each tumor. In any case, only a tight interaction of bioengineers with cancer biologists and oncologists can make such 3D models progress, with them finally reaching a clinical relevance. On the other hand, the medical community is approaching simpler 3D in vitro models not provided with sufficient extracellular matrix biomimicry, such as spheroids and organoids, which may not be self-exhaustive; therefore, cancer researchers could benefit from closer contact with bioengineers. The aim of this reprint is to help generate shared knowledge and promote strong interdisciplinary collaboration with the ultimate goal of contributing to the acceleration of the discovery and validation of more precise therapies to fight cancer.

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