



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

Guest Editors:

Dr. Serena Danti

Department of Civil and Industrial Engineering, University of Pisa, Largo L. Lazzarino 2, 56122 Pisa, Italy

Dr. Nicola Contessi Negrini

Department of Bioengineering, Imperial College London, South Kensington, SW7 2AZ, London, United Kingdom

Prof. Alessandro Franchi

Department of Translational Research and of New Technologies in Medicine and Surgery, University of Pisa, via Savi 2, 56126 Pisa, Italy

Deadline for manuscript submissions:

closed (1 March 2022)

Message from the Guest Editors

Dear Colleagues,

The structural and biological complexity of tumors represents a great challenge for the development of effective therapies and drugs. Traditional *in vitro* cultures are inherently bi-dimensional (2D), whereas *in vivo* animal models are inherently non-human, therefore are affected by drawbacks that slow down and limit the advancements in cancer research. By using biomaterials to generate 3D structures, such as hydrogels and porous scaffolds, 3D *in vitro* models can overcome the oversimplification of traditional cell cultures by offering a physiological-like microenvironment for cancer cell growth and interaction with diverse cell types.

This special issue covers current research (by original research papers, review articles, and short communications) that focus on the development and study of innovative biomaterial-assisted strategies to recapitulate *in vitro*, within a 3D microenvironment, the formation of cancer, the spread of metastasis and all the related aspects aimed to provide advancement in the study of tumor pathology for oncologic research to be also implemented for drug screening.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Samuel C. Mok

Department of Gynecologic
Oncology and Reproductive
Medicine, The University of Texas
MD Anderson Cancer Center,
Houston, TX 77030, USA

Message from the Editor-in-Chief

Cancers (ISSN 2072-6694) is an international, online journal addressing both clinical and basic science issues related to cancer research. The journal will continue its open access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (Oncology) / CiteScore - Q1 (Oncology)

Contact Us

Cancers Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/cancers
cancers@mdpi.com
[X@Cancers_MDPI](https://twitter.com/Cancers_MDPI)