# Special Issue

# Extracellular Matrix—Role in the Tumor Microenvironment and Impact on Cancer Therapy

## Message from the Guest Editors

The extracellular matrix (ECM) is a complex network of carbohydrate-rich proteins secreted by cells and deposited in the surrounding tissue. It plays a critical role in the structure and function of multicellular tissues and organs, not only providing a mechanical scaffold but also acting as an active sensor and signaling mediator between cells and their environment. These bioactive components regulate cellular behavior and biochemical properties by transmitting signals to the cells. The composition of the ECM is influenced by the type and differentiation state of the cells that produce it, suggesting a dynamic, reciprocal interaction between the cellular and non-cellular components of the tissue. In the context of solid tumors, there is increased deposition of ECM proteins. The excessive amount of ECM leads to increased solid stress, which impairs blood vessel perfusion and results in hypoxia. Hypoxia, in turn, alters the phenotype of tumor and stromal cells, promoting an immunosuppressive microenvironment. The ECM is also known to play a significant role in tumor cell growth, migration, and invasion.

## Guest Editors

Dr. Heena Kumra

Edwin L. Steele Laboratories, Department of Radiation Oncology, Massachusetts General Hospital and Harvard Medical School, Boston, MA 02114, USA

Dr. Makoto Noda

Department of Molecular Oncology, Kyoto University, Kyoto 606-8501, Japan

## Deadline for manuscript submissions

30 April 2026

**Cancers**

an Open Access Journal by MDPI

Impact Factor 4.4
CiteScore 8.8
Indexed in PubMed

mdpi.com/si/225297

*Cancers*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
cancers@mdpi.com

mdpi.com/journal/cancers

# Cancers

an Open Access Journal by MDPI

Impact Factor 4.4
CiteScore 8.8
Indexed in PubMed

mdpi.com/journal/cancers

MDPI

# About the Journal

## Message from the Editor-in-Chief

*Cancers* is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in 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.

## 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

## 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)