

**IUBMB Life special issue:**

**Extracellular Matrix: The Dynamic Structural and Functional Network in Health and Disease**

**Guest editors:** Nikos Karamanos (University of Patras), Sylvie Ricard-Blum (University of Lyon), and Dimitris Kletsas (National Center for Scientific Research Demokritos, Athens)

**Scope of the issue:** Extracellular matrices (ECMs), as dynamic 3-dimensional networks of macromolecules, play key roles in structural organization, cell-cell and cell-matrix interactions affecting cell properties, gene expression, tissue remodeling and cell signaling and therefore are implicated in several pathophysiological processes. Cell proliferation, differentiation, migration, angiogenesis and autophagy are among cell processes regulated by ECM macromolecules. Better knowledge on how ECM modulates cell functions could be used for pharmacologically targeting ECM in diseases including cancer, cardiovascular disease and immune-related disorders.

We invite investigators to contribute original research articles that address the ECM as a key player in health and disease, in cell functional properties and behavior, in disease diagnosis and pharmacological targeting/treatment approaches, as well as in bioengineering and biotechnology. Themes related to development, evolution, tumor biology, therapeutics, -omics and aging are also welcomed. Research approaches could address either ECM networks or macromolecules such as collagens, proteoglycans, glycosaminoglycans, integrins, cell-matrix receptors, matrix-degrading and modifying enzymes and matrix-related proteins/glycoproteins. Critical reviews in areas not recently covered are also welcomed upon invitation or approval of proposals by the guest editors.

**Topics:** Suggested potential topics include but are not limited to the following:

1. ECM composition and structural organization in health and disease
2. Cell communication approaches: cell-cell and cell-matrix interactions
3. Regulatory role of ECM in various pathological conditions
4. Tumor microenvironment, stromal cells and ECM in cancer
5. The role of ECM in cell signaling and functional properties
6. Therapeutic strategies based on pharmaceutical targeting
7. ECM-based biotechnological approaches in disease treatment

The issue is scheduled for publication in **summer 2022**. Manuscripts should be submitted by **28 February 2022**. Upon acceptance, the manuscripts will appear online and be citable within 3-4 days.

Submit your manuscript through the IUBMB Life ScholarOne site at <https://mc.manuscriptcentral.com/tbmb> During the submission process you will be asked if your manuscript is for a special issue. From the dropdown menu, please select "Extracellular matrix".

If you have questions about topic suitability, please contact Guest Editor Nikos Karamanos ([n.k.karamanos@upatras.gr](mailto:n.k.karamanos@upatras.gr)). For questions about manuscript submission, contact the IUBMB Life Special Issues Editor, Gwen Taylor ([gtaylor@wiley.com](mailto:gtaylor@wiley.com)).