

## MATRIX METALLOPROTEINASES: IMPORTANT PARTICIPANTS IN EVERY STEP OF TUMOR DEVELOPMENT AND PROMISING TARGETS IN MODERN ANTITUMOR THERAPIES

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Matrix metalloproteinases are proteolytic enzymes that are able to cleave almost all components of extracellular matrix as well as many other soluble and membrane attached molecules of very diverse nature. Their proteolytic activity is crucial for embryogenesis, tissue development, remodeling and organisation. As important as in physiological processes, they play crucial role in tumor development, progression, tissue invasion and metastasis.

In this review, we discuss complex involvement of these zinc-dependent endopeptidases in every step of tumor development and progression. We highlight the importance of collaboration between tumor cells and tumor microenvironment at different levels of tumor development and spreading. We also emphasize the importance of inhibition of certain matrix metalloproteinases (depending on tumor type and stage) in order to support cytostatic therapy. *Acta Medica Medianae 2023;62(2): 45-51.*

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