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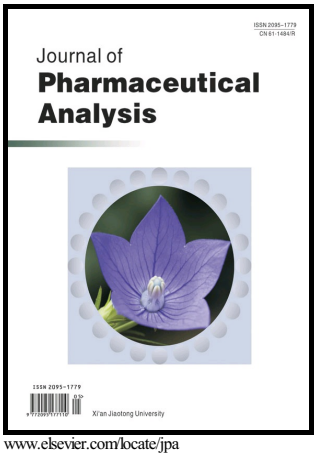

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Advances in Tumor-Endothelial Cells Co-culture and Interaction on Microfluidics

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Abstract

The metastasis in which the cancer cells degrade the extracellular matrix (ECM) and invade to the surrounding and far tissues of the body is the leading causes of mortality in cancer patients. With a lot of advancement in the field, yet the biological causes of metastasis are poorly understood. The microfluidic system provides advanced technology to reconstruct a variety of *in vivo*-like environments for studying the interactions between tumor cells (TCs) and endothelial cells (ECs). This review gives a brief account of both two-dimensional models and three-dimensional microfluidic systems for the analysis of TCs-ECs co-culture as well as their applications to anti-cancer drug screening. Furthermore, the advanced methods for analyzing cell-to-cell interactions at single-cell level were also discussed.

Keywords: Microfluidic; Cell analysis; Cell co-culture; Cell interaction; Review