عنوان مقاله:
Application of Microfluidic Platforms in Cancer Therapy

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خلاصه مقاله:
Cancer is a leading cause of death worldwide, accounting for nearly ۱۰ million deaths in ۲۰۲۰. The implementation of new technological tools can improve prevention strategies, diagnostics, and treatment systems for this group of diseases. Microfluidic devices like Organs on a Chip are being considered a rising approach in biological cancer studies. They involve volumes down to less than microliters and usually do not require specialized machinery and materials to be produced. Therefore, they are potentially used in clinical settings without restriction. In addition, microfluidic platforms have a high potential for mimicking biological conditions. They are recognized as promising tools in cancer fields like single cell detection, fluid biopsy, drug screening modeling, angiogenesis, and metastasis. This review describes the fabrication methods and application of microfluidic platforms in cancer therapy.

کلمات کلیدی:
Microfluidic platforms, diagnosis, cancer, therapy