

Special Issue

Microfluidics for Circulating Biomarkers

Message from the Guest Editor

Circulating biomarkers, which include circulating tumor cells, circulating cell-free DNA, extracellular vesicles (exosomes, ectosomes, apoptotic bodies, etc.), and proteins, are a growing research area due to their significance in the diagnosis and prognosis of many diseases; not only cancer, but also other severe symptoms such as metabolic or cardiovascular diseases.

Microfluidic technology also provides a number of useful capabilities for the research of circulating biomarkers: The ability to use very small amounts of samples and reagents, to carry out separations and detections with a high resolution and sensitivity, to reduce the loss of target biomarkers by continuously processing all steps, from sample pre-treatment to analysis, to easily integrate with other techniques, such as electronics and optics, which improve the efficiency of the device, and so on.

Accordingly, this Special Issue will focus on novel microfluidic-based platforms for the isolation, enrichment, and the characterization of circulating biomarkers. Additionally, we would like to discuss advanced approaches for converting experiments at the laboratory scale into clinical practice.

Guest Editor

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