



# BioTech



an Open Access Journal by MDPI

## Liquid Biopsy Applications and Challenges

Guest Editor:

**Dr. John Yahya I. Elshimali**

Division of Cancer Research and Training, Department of Internal Medicine, Charles Drew University of Medicine and Science & UCLA School of Medicine, Los Angeles, CA, USA

Deadline for manuscript submissions:  
**closed (20 March 2024)**

### Message from the Guest Editor

Liquid biopsy is not literally a biopsy, but is a new diagnostic concept applied to optimize the management and follow up for cancer patients by using circulating tumor cells (CTC), cell free DNA (cfDNA), cell free RNA (cfRNA) and micro-RAN (miRNA) that are released from primary tumor or metastatic deposits into the peripheral blood or body fluids. Liquid biopsy is not an invasive procedure, and it aims to detect target molecules, monitor therapeutic response and resistance, avoid repeat tissue biopsies where the tissue is not available and predict prognosis. Hence, liquid biopsy has become the leading molecular technique for precision medicine. In fact, the applications of liquid biopsy go beyond the field of oncology, such as in the fields of obstetrics, cardiology and pediatrics.



[mdpi.com/si/178411](https://mdpi.com/si/178411)

# Special Issue