

MOVING TOWARD MINIMALLY INVASIVE TESTING

Liquid biopsy refers to the collection and analysis of biofluids, such as blood, cerebrospinal fluid, or urine. In oncology, it primarily involves the capture and analysis of cells, lipid-encapsulated sacs called exosomes, or free DNA shed by tumors. For example, a blood sample, rather than a biopsy of the tumor tissue itself, could be used to analyze genomic alterations in a patient's cancer. Currently, many liquid biopsy platforms are being developed and tested.

- Liquid biopsies have the potential to be safer and less invasive for the patient, more likely to result in patient compliance, and better representative of tumor heterogeneity than a typical biopsy.
- Currently, liquid biopsies are used in the clinic to a) detect mutations in cancers that are targetable by therapeutics, and b) detect mutations in cancers that may indicate the emergence of resistance to certain therapeutics.
- Ongoing research is further assessing the value of liquid biopsies in a) detecting early evidence of disease; b) monitoring disease burden; c) evaluating response to treatment, including treatment with immunotherapeutics; and d) evaluating tumor heterogeneity.

