

# 7



## Recent Technical Advances in Molecular Analysis

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### Chapter summary

This chapter has:

- Defined the liquid biopsy (LB) and contrasted it with the standard tissue biopsy.
- Introduced the main LB technologies available to study circulating tumour cells and cell free nucleic acids (DNA, RNA, microRNAs, non-coding RNAs).
- Described the main molecular characteristics that are used to define what the phenotype of circulating tumour cells is likely to be.
- Presented the main applications of studying LB and potential benefit for molecular diagnostics.
- Defined and outlined the concepts of digital PCR (dPCR).
- Introduced different platforms and chemistries of dPCR.
- Discussed the advantages and limitations of dPCR.
- Explored various clinical applications for dPCR.