

The role of liquid biopsy in immunotherapy response prediction and monitoring in NSCLC

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Immune checkpoint inhibitors (ICI) targeting PD(L)-1 and CTLA4 represent an important pillar of therapy in many cancer types. In Non-Small Cell Lung Cancer (NSCLC) the majority of patients receives immunotherapy as one line of therapy and approximately 20% of Stage IV NSCLC patients live longer than five years upon ICI. However, the majority of patients experience resistance leading to therapy progression. Liquid Biopsies hold promise to predict treatment outcome and monitor resistance development. The current ICI treatment landscape in NSCLC will be overviewed and linked to findings obtained with analyzing ctDNA, CTCs and other liquid biopsy analytes. Furthermore, a novel pipeline for enrichment of large numbers of CTCs from diagnostic leukapheresis products will be presented yielding insights into the phenotypic complexity of NSCLC CTCs.