

**Supplementary Table 3.** List of published trials to study the diagnostics via liquid biopsy in hepatocellular carcinoma

NCT number	Title	Status	Estimated enrollment/perspective	Study details
NCT03162198	Frequency of Circulating Tumor Cells (CTCs) and Amount of Cell-free DNA (cfDNA) in Cirrhotic Patients With Hepatocellular Carcinoma (HCC)	Completed	53/cross-sectional	Frequency of Circulating Tumor Cells (CTCs) and Amount of Cell-free DNA (cfDNA) in Cirrhotic Patients With Hepatocellular Carcinoma (HCC)
NCT03483922	HCC Screening Using DNA Methylation Changes in ctDNA	Completed	403 participants/retrospective	Chronic hepatitis B, HCC case, healthy, DNA methylation of circulated tumor and PBMC DNA and its Correlation to Development and prediction of HCC
NCT03311152	Circulating Cell-free DNA-based Epigenetic Biomarker mSEPT9 for Hepatocellular Carcinoma Detection in Cirrhosis	Recruiting	530/cross-sectional biomarker phase II	Diagnostic Accuracy of the Circulating Cell-free DNA-based Epigenetic Biomarker mSEPT9 for Hepatocellular Carcinoma Detection Among Cirrhotic Patients: the SEPT9-CROSS Study, mSEPT9
NCT05342350	Surveillance and Treatment Of Primary Hepatocellular Carcinoma: An International Prospective Observational Cohort Study of High-Risk Patients for HCC Using Liquid Biopsy	Active, not recruiting	1,600/prospective	High-Risk Patients for HCC Using Liquid Biopsy, GALAD* score performance
NCT05256459	Clinical Intervention Strategy for High-risk Group of Hepatitis B Related Hepatocellular Carcinoma	Not yet recruiting	1,000/prospective	High risk patients were examined for high-precision HBV-DNA quantification, liver function, AFP, abdominal imaging, monitoring (3-5 years)
NCT04539717	FAST (Focused Abbreviated Screening Technique)-MRI Study	Enrolling by invitation	820/prospective	HCC screening with Magnetic Resonance Imaging and circulating tumor DNA, $\alpha$ -fetoprotein
NCT05199259	Multi-analyte Blood Test Clinical Trial	Not yet recruiting	1,200/prospective	Cirrhosis patients, multianalyte blood test
NCT03517332	Circulating Tumor DNA Exposure in Peripheral Blood	Unknown status	10,000/prospective	Circulating Tumor DNA Exposure in Peripheral Blood Using a Novel Process: A Feasibility Study
NCT05393102	Auxiliary Diagnosis of Liver Nodules Using cfDNA Whole-genome Signatures	Not yet recruiting	400/prospective	Sensitivity/Specificity of the cfDNA whole-genome signatures-based model in liver nodules diagnosis
NCT03551951	Tumor Cell and DNA Detection in the Blood, Urine, and Bone Marrow	Recruiting	320/prospective	Circulating tumor cells/disseminated tumor cells/cell free DNA isolation from the blood, urine and bone marrow in various tumor

\*Gender, age, alpha-fetoprotein L3% (AFP-L3), AFP, des-gamma-carboxy prothrombin.