

Noninvasive detection of tumor-associated mutations from circulating cell-free DNA in hepatocellular carcinoma patients by targeted deep sequencing

SUPPLEMENTARY TABLES

Supplementary Table S1: Detailed information of the prior-treatment status of HCC patients

See Supplementary File 1

Supplementary Table S2: Clinical characteristics and mutation status in plasma DNA of control group

Subjects	Age (Year)	Sex	Alcohol intake	Cirrhosis	HBV	Diagnosis	Mutation		
							P-TERT	P-CTNNB1	P-TP53
Con1	37	F	No	No	No	Hepatic hemangiomas	-135G>T	Not detected	Not detected
Con2	50	M	Yes	No	No	hepatic hemangiomas	Not detected	Not detected	Not detected
Con3	36	F	No	No	No	Hepatic EHE	Not detected	c.90C>T	Not detected
Con4	65	M	Yes	No	No	FNH	-166C>T	131C>T	Not detected
Con5	33	M	Yes	No	No	HCE	Not detected	120T>C	Not detected
Con6	70	M	No	No	No	ICC	-189A>G -166C>T	Not detected	Not detected
Con7	25	F	No	No	No	HC	-189A>G -124C>T	Not detected	c.730G>T c.729G>A
Con8	35	F	No	No	No	HC	Not detected	Not detected	Not detected
Con9	25	F	No	No	No	HC	Not detected	Not detected	Not detected
Con10	23	F	No	No	No	HC	Not detected	Not detected	Not detected

Abbreviations: F, Female; M, Male; Con, Control group; Hepatic EHE, Hepatic epithelioid hemangioendothelioma; FNH, Focal nodular hyperplasia; HCE, Hepatic cystic echinococcosis; ICC, Intrahepatic cholangiocellular carcinomas; HC, Health control.

Supplementary Table S3: Variants in TERT, CTNNB1 and TP53 detected in tumor tissue and plasma of HCC patients

See Supplementary File 2

Supplementary Table S4: Repeated trials in five randomly selected patients

Subject	Mutations			Mutations (repeated trials)		
	P-TERT	P-CTNNB1	P-TP53	P-TERT	P-CTNNB1	P-TP53
HCC06	-168A>C	Not detected	Not detected	Not detected	Not detected	Not detected
HCC07	-166C>T	Not detected	Not detected	-113C>T -104T>C	Not detected	c.737T>C
HCC09	-189A>G	Not detected	Not detected	-189A>T -113C>T -104T>C -98T>C	Not detected	c.737T>C
HCC16	-168A>G	c.116C>T	Not detected	-168A>G	Not detected	Not detected
HCC38	-124C>T	Not detected	c.737T>A	-189A>T -124C>T -113C>T -104T>C	Not detected	c.737T>A

Abbreviations: Reads Depth in repeated trials had been increased (Median: 92461X; Average: 156810X).

Supplementary Table S5: Primer design for MiSeq sequencing

See Supplementary File 3