

Supplementary Materials: Liver Transplantation for Unresectable Intrahepatic Cholangiocarcinoma: The Role of Sequencing Genetic Profiling

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Table S1. Genes covered by SureSelect Cancer All-In-One (AIO) Solid Tumor Assay.

<i>ABL1</i>	<i>CDKN2A</i>	<i>FGFR4</i>	<i>MLH1</i>	<i>RAF1</i>
<i>AKT1</i>	<i>CDKN2B</i>	<i>FOXL2</i>	<i>MSH2</i>	<i>RB1</i>
<i>ALK</i>	<i>CIC</i>	<i>GNA11</i>	<i>MSH6</i>	<i>RET</i>
<i>APC</i>	<i>CSF1R</i>	<i>GNAQ</i>	<i>MTOR</i>	<i>RIT1</i>
<i>AR</i>	<i>CTNNB1</i>	<i>GNAS</i>	<i>MYC</i>	<i>ROS1</i>
<i>ARAF</i>	<i>DDR2</i>	<i>HNF1A</i>	<i>MYCN</i>	<i>SMAD4</i>
<i>ARID1A</i>	<i>DNMT3A</i>	<i>HRAS</i>	<i>MYD88</i>	<i>SMARCB1</i>
<i>ATM</i>	<i>EGFR</i>	<i>IDH1</i>	<i>NF1</i>	<i>SMO</i>
<i>BCL2</i>	<i>ERBB2</i>	<i>IDH2</i>	<i>NF2</i>	<i>SRC</i>
<i>BCR</i>	<i>ERBB3</i>	<i>JAK2</i>	<i>NFE2L2</i>	<i>STK11</i>
<i>BRAF</i>	<i>ERBB4</i>	<i>JAK3</i>	<i>NOTCH1</i>	<i>TERT</i>
<i>BRCA1</i>	<i>ESR1</i>	<i>KDR</i>	<i>NRAS</i>	<i>TMPRSS2</i>
<i>BRCA2</i>	<i>ETV1</i>	<i>KIT</i>	<i>NTRK1</i>	<i>TP53</i>
<i>CCND1</i>	<i>ETV4</i>	<i>KMT2A</i>	<i>PDGFRA</i>	<i>TSC1</i>
<i>CCND2</i>	<i>ETV6</i>	<i>KRAS</i>	<i>PDGFRB</i>	<i>TSC2</i>
<i>CCNE1</i>	<i>EZH2</i>	<i>MAP2K1</i>	<i>PIK3CA</i>	<i>VEGFA</i>
<i>CD274</i>	<i>FBXW7</i>	<i>MAP2K2</i>	<i>PIK3R1</i>	<i>VHL</i>
<i>CDH1</i>	<i>FGFR1</i>	<i>MAP2K4</i>	<i>PTCH1</i>	<i>WT1</i>
<i>CDK4</i>	<i>FGFR2</i>	<i>MDM2</i>	<i>PTEN</i>	
<i>CDK6</i>	<i>FGFR3</i>	<i>MET</i>	<i>PTPN11</i>	

Table S2. List of all pathogenic or likely-pathogenic mutations found in iCCA tissue samples from 12 patients who underwent liver transplantation.

Gene (Transcript)	cDNA (cNomen)	Patient	Pathway
KRAS(NM_033360.4)	c.183A>C	1	MAPK
KRAS(NM_033360.4)	c.35G>A	2	MAPK
KRAS(NM_033360.4)	c.35G>T	3	MAPK
KRAS(NM_033360.4)	c.35G>T	4	MAPK
KRAS(NM_033360.4)	c.35G>A	5	MAPK
KRAS(NM_033360.4)	c.35G>T	6	MAPK
KRAS(NM_033360.4)	c.35G>A	7	MAPK
KRAS(NM_033360.4)	c.35G>A	9	MAPK
KRAS(NM_033360.4)	c.216G>A	9	MAPK
KRAS(NM_033360.4)	c.216G>A	11	MAPK

NF1(NM_001042492.2)	c.3313A>T	2	MAPK
NF1(NM_001042492.2)	c.3144G>T	2	MAPK
NF1(NM_001042492.2)	c.808C>T	5	MAPK
NF1(NM_001042492.2)	c.4273G>T	6	MAPK
NF1(NM_001042492.2)	c.5788T>C	7	MAPK
BRAF(NM_001374258.1)	c.144G>A	1	MAPK
BRAF(NM_001374258.1)	c.1039C>T	4	MAPK
BRAF(NM_001374258.1)	c.1531G>T	9	MAPK
ERBB4(NM_005235.3)	c.1818G>T	9	MAPK
ERBB4(NM_005235.3)	c.3902A>G	12	MAPK
KIT(NM_000222.2)	c.811C>T	4	MAPK
KIT(NM_000222.2)	c.2008A>T	7	MAPK
FGFR2(NM_022970.3)	c.2063G>A	5	MAPK
FGFR3(NM_001354809.2)	c.1849A>G	12	MAPK
HRAS(NM_176795.4)	c.34G>A	5	MAPK
MAP2K4(NM_001281435.2)	c.779G>A	4	MAPK
MET(NM_000245.4)	c.3629G>A	12	MAPK
ATM(NM_000051.3)	c.283C>T	1	P53
ATM(NM_000051.3)	c.6448G>A	1	P53
ATM(NM_000051.3)	c.7472G>T	4	P53
ATM(NM_000051.3)	c.8254A>T	4	P53
ATM(NM_000051.3)	c.5908C>T	5	P53
ATM(NM_000051.3)	c.1715T>C	5	P53
ATM(NM_000051.3)	c.967A>G	7	P53
ATM(NM_000051.3)	c.5697C>A	9	P53
ATM(NM_000051.3)	c.4577C>T	9	P53
ATM(NM_000051.3)	c.4906C>T	12	P53
CDKN2A(NM_001195132.1)	c.194T>C	1	P53
CDKN2A(NM_001195132.1)	c.262G>T	2	P53
CDKN2A(NM_001195132.1)	c.194T>C	10	P53
CDKN2A(NM_001195132.1)	c.194T>C	12	P53
RB1(NM_000321.2)	c.1544C>T	6	P53
RB1(NM_000321.2)	c.2014G>T	11	P53
TP53(NM_001126114.2)	c.818G>A	10	P53
PIK3CA(NM_006218.2)	c.262C>T	2	PI3K-Akt
PIK3CA(NM_006218.2)	c.2113C>T	2	PI3K-Akt
PIK3CA(NM_006218.2)	c.2119G>A	6	PI3K-Akt
PIK3CA(NM_006218.2)	c.353G>A	7	PI3K-Akt
PIK3CA(NM_006218.2)	c.1624G>A	7	PI3K-Akt
PIK3CA(NM_006218.2)	c.1067T>C	7	PI3K-Akt
PIK3CA(NM_006218.2)	c.2119G>A	7	PI3K-Akt
PIK3CA(NM_006218.2)	c.1035T>A	9	PI3K-Akt
PTEN(NM_001304718.2)	c.435+1G>T	3	PI3K-Akt
PTEN(NM_000314.4)	c.493G>T	6	PI3K-Akt
PTEN(NM_000314.4)	c.640C>T	9	PI3K-Akt
PTEN(NM_001304717.5)	c.927G>A	12	PI3K-Akt
MTOR(NM_004958.3)	c.526G>A	5	PI3K-Akt
MTOR(NM_004958.3)	c.6577C>T	12	PI3K-Akt
APC(NM_001354895.2)	c.1500T>A	1	Wnt

APC(NM_001354895.2)	c.706C>T	3	Wnt
APC(NM_001354895.2)	c.1624C>T	3	Wnt
APC(NM_001354895.2)	c.1658G>A	4	Wnt
APC(NM_001354895.2)	c.4508C>A	4	Wnt
APC(NM_001354895.2)	c.471G>A	6	Wnt
CTNNB1(NM_001904.4)	c.1040T>C	4	Wnt
CTNNB1(NM_001904.4)	c.1628C>T	5	Wnt
CTNNB1(NM_001904.4)	c.1955C>T	12	Wnt
GNAS(NM_080425.3)	c.2531G>A	1	cAMP
GNAS(NM_080425.3)	c.2530C>T	3	cAMP
GNAS(NM_080425.3)	c.2531G>A	5	cAMP
GNAS(NM_080425.3)	c.2531G>A	9	cAMP
GNAS(NM_080425.3)	c.2531G>A	11	cAMP
GNA11(NM_002067.5)	c.196G>A	5	cAMP
GNA11(NM_002067.5)	c.412G>T	11	cAMP
GNA11(NM_002067.5)	c.785C>A	12	cAMP
GNAQ(NM_002072.5)	c.303C>A	2	cAMP
ARID1A(NM_006015.4)	c.5975C>T	5	Chromatin
ARID1A(NM_006015.4)	c.3219G>A	5	Chromatin
ARID1A(NM_006015.4)	c.3562C>T	5	Chromatin
ARID1A(NM_006015.4)	c.4024C>T	5	Chromatin
ARID1A(NM_006015.4)	c.880A>C	6	Chromatin
ARID1A(NM_006015.4)	c.5372C>A	12	Chromatin
IDH1(NM_001282387.1)	c.473C>T	2	EpigeneticRegulation
IDH1(NM_001282387.1)	c.481G>A	6	EpigeneticRegulation
IDH1(NM_001282387.1)	c.394C>T	8	EpigeneticRegulation
IDH1(NM_001282387.1)	c.1004C>T	9	EpigeneticRegulation
KMT2A(NM_001197104.1)	c.5383G>A	4	EpigeneticRegulation
KMT2A(NM_001197104.1)	c.5755G>A	12	EpigeneticRegulation
FBXW7(NM_001349798.2)	c.1160T>A	10	Notch
NOTCH1(NM_017617.5)	c.7171C>T	12	Notch
BRCA2(NM_000059.3)	c.3853G>T	7	DNARepair
SMAD4(NM_005359.5)	c.538C>T	12	TGF-Beta