

Supplemental Table 2: Clinical features of *IDH1*-mutant intrahepatic cholangiocarcinoma patients in the Screening cohort.

Patient ID	<i>IDH1</i> mutation status	Serum 2HG (ng/ml)	Tumor burden at time of blood sample collection	Treatment and response at time of blood collection
R14	R132C	96.8	4.2x3.8 cm liver lesion, plus 4 subcentimeter liver lesions in right lobe.	On clinical trial with GEMOX/panitumumab. Blood sample was obtained at 6 months on treatment, and patient had a confirmed partial response (dominant liver mass 8.0x7.0 cm decreased to 4.2x3.8 cm).
R25	R132C	107	No evidence of disease.	Two months following surgical resection of a stage II ICC.
R10	R132C	173	Small bilateral pulmonary nodules, all of them 1-7 mm with the exception of one 1.5 cm lung nodule.	Approximately 8 months following resection followed by adjuvant GEMOX-based chemotherapy for a T3 ICC. No treatment at the time of blood sample collection.
R11	R132C	174	2.1x1.5 cm soft tissue mass close to pancreas.	On GEMOX for recurrent ICC two years following resection with small volume peritoneal disease. Blood sample was obtained two months into treatment, and patient had stable disease.
R23	R132C	330	14x7 cm liver mass with satellite lesions and bony lesions.	On second line FOLFOX-based chemotherapy. Blood sample was obtained at about one month into treatment, with tumor markers trending down.
R20	R132L	478	11.8x5.6 cm liver mass, multiple subcentimeter hepatic lesions, and T8 vertebral body bony lesion.	On second line CAPEOX-based chemotherapy. Blood sample was obtained about two months into treatment, and patient had overall stable disease.
R22	R132L	500	Multiple hepatic lesions with the largest one measuring 12.1x7.3 cm in the left lobe.	On a clinical trial with GEMOX/panitumumab. Blood sample was obtained at 2 weeks into treatment. Restaging scan following cycle 4 later showed partial response with large left lobe mass decreased from 12.1x7.3 cm to 7.0 x 6.2 cm.

R26	R132C	509	Multiple hepatic lesions with the largest one measuring 7.8x5.2 cm. Porta hepatitis lymphadenopathy present.	Newly diagnosed ICC and treatment naive.
R4	R132L	777	Multiple hepatic lesions with the largest one measuring 9x8 cm in the liver.	On GEMOX-based chemotherapy. Blood sample obtained at two months into treatment, and patient had progressive disease.
R9	R132G	1093	Dominant right lobe mass measuring 14.4x13.0 cm with satellite lesions.	On GEMOX-based chemotherapy. Blood sample was obtained at 6 weeks, and patient had stable disease radiologically and a rising CA19-9 level.
R27	R132C	25570	Extensive tumor burden in the liver (more than 60% replaced) with dominant left lobe mass measuring 17x10 cm and many other hepatic lesions with gastrohepatic, peripancreatic, and retroperitoneal lymphadenopathy.	On GEMOX. Blood sample was obtained at 2 weeks into treatment. The patient had rapid clinical decline and a rising CA19-9/AFP and died within one month of blood sample collection.

Abbreviations: ID: identification; IDH: isocitrate dehydrogenase; 2HG: 2-hydroxyglutarate; ICC: intrahepatic cholangiocarcinoma; GEMOX: gemcitabine/oxaliplatin; CAPEOX: capecitabine/oxaliplatin; AFP: Alpha-fetoprotein