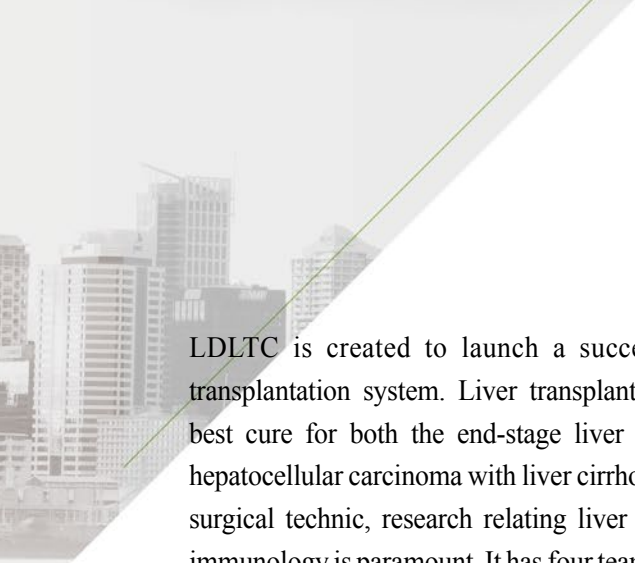


Living-donor Liver Transplantation Center



LDLTC is created to launch a successful liver transplantation system. Liver transplantation is the best cure for both the end-stage liver disease and hepatocellular carcinoma with liver cirrhosis. Besides surgical technic, research relating liver disease and immunology is paramount. It has four teams, surgical-technic team, anesthetic team, and two centers which are introduced below.

Major research goals

Hepatocellular carcinoma(HCC) is one of the most prevalent fatal cancers worldwide. Recent advances of therapeutic modality for HCC have been improved prognosis, but only provide limited benefit because of clinical and molecular heterogenicity of HCC and underlying chronic liver disease. Thus, precise understanding of the clinical and molecular analysis of hepatocarcinogenesis and HCC progression will contribute to identification of new therapeutic modality.

Director
Prof. YANGSEOK KOH, M.D., Ph.D.

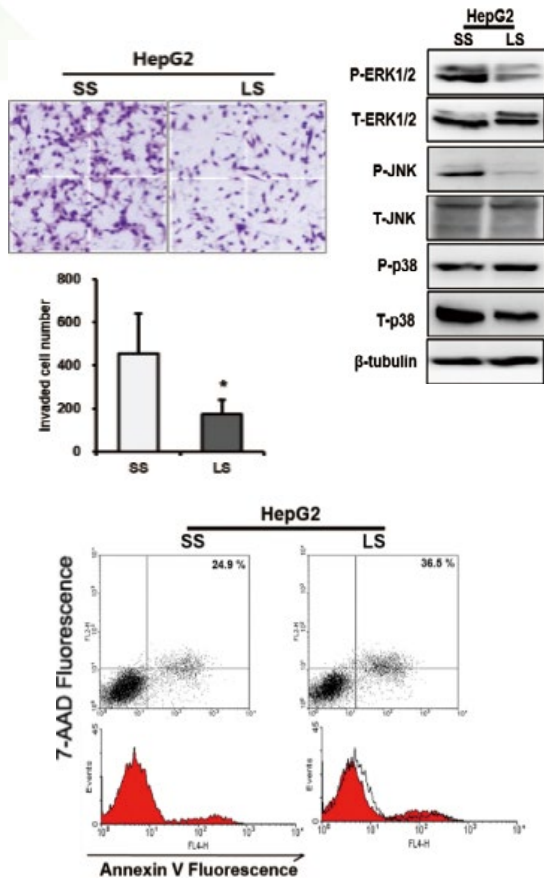
Major research topics

1. Molecular analysis of hepatocarcinogenesis and progression
2. Advance of established treatment for HCC
3. Development of new therapeutic modality

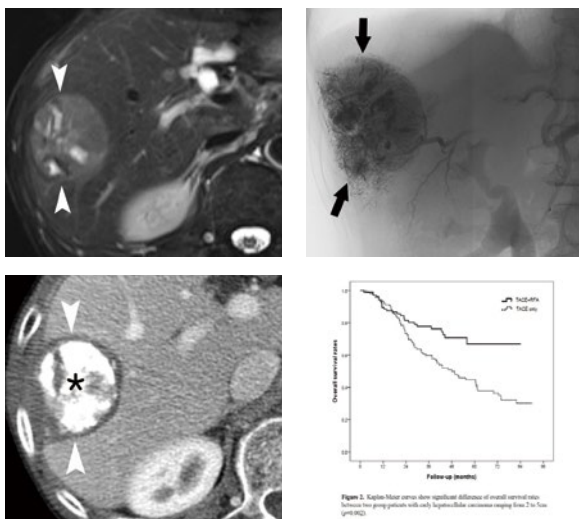
Major achievements

1. Livin is associated with the invasive and oncogenic phenotype in HCC cells
2. RON alters invasiveness and metastatic risk in HCC cells
3. Extended curative modality by RFA combined with TACE for intermediate HCC upto 5cm in size
4. Randomized study of HAIC vs sorafenib in advanced HCC with portal vein thrombosis
5. Phase 3 clinical trial: Nivoulmab(anti PD-1 monoclonal antibody as check point inhibitor) vs Sorafenib in first line treatment for advanced HCC(Ono, Japan)
6. Phase 1 clinical trial: Metronomic HAIC with NK cell infusion for advanced HCC(Baxelbio, korea)

Representative figures of major achievements



Knockdown of Livin suppressed the invasion and induced apoptosis and cell cycle arrest through inhibition of MAPK signaling in HCC cells



5cm sized hypervascular HCC was completely

ablated by RFA combined TACE. The group with RFA combined with TACE shows better prognosis than TACE only in intermediate HCC patient.

Major relevant publications

1. Cho SB, Lee WS, Park YL, et al. Livin is associated with the invasive and oncogenic phenotypes of human hepatocellular carcinoma cells. *Hepatol Res.* 2015 Apr;45(4):448-57.
2. Song DS, Song MJ, Cho SB, et al. A comparative study between sorafenib and hepatic arterial infusion chemotherapy for advanced hepatocellular carcinoma with portal vein tumor thrombosis. *J Gastroenterol.* 2015 Apr;50(4):445-54.
3. Song MJ, Bae SH, Cho SB, et al. A randomized study of cisplatin and 5-FU hepatic arterial infusion chemotherapy with or without adriamycin for advanced hepatocellular carcinoma. *Cancer Chemother Pharmacol.* 2015 Apr;75(4):739-46.
4. Kim DY, Park BJ, Cho SB, et al. Radioembolization With Yttrium-90 Resin Microspheres in Hepatocellular Carcinoma: A Multicenter Prospective Study. *Am J Clin Oncol.* 2015 Oct;38(5):495-501.
5. The clinical outcomes of chronic hepatitis C in South Korea: A prospective, multicenter cohort study. Ok KS, Jeong SH, Cho SB, et al. *Medicine(Baltimore).* 2016 Aug;95(35):e4594.

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