Supplementary information, Fig. S6 С Stromal cell Endothelial cell Macrophage HSC/MPP Hepatoblast Mecom Alb HIf Enrichment Expression score High High Low Expression Enrichment score High High Expression Enrichment score High High Low Enrichment Expression score High High Low Low d f g Afp Alcam Pdgfra Kdr Lyve1 Ly86 Cd68 Expression Expression Expression Expression High High High High Low Expression Expression Expression Expression High High High High Low Expression Expression High Expression Expression High High High Low Low Expression Expression Expression Expression High High High High

Supplementary information, Fig. S6. Spatial features of HSCs/MPPs and niche cells. a Spatial feature plots showing the spatial enrichment score of HSCs/MPPs and niche cells in FL sections. b Expression pattern of HSC/MPP markers *Hlf* and *Mecom* in FL sections. c Spatial feature plots of hepatoblast marker *Alb* expression in FL sections. d Expression pattern of hepatoblast marker *Afp* in FL sections. e Expression pattern of stromal cell markers *Alcam* and *Pdgfra* in FL sections. f Expression pattern of EC markers *Kdr* and *Lyvel* in FL sections. g Expression pattern of macrophage markers *Ly86* and *Cd68* in FL sections.