

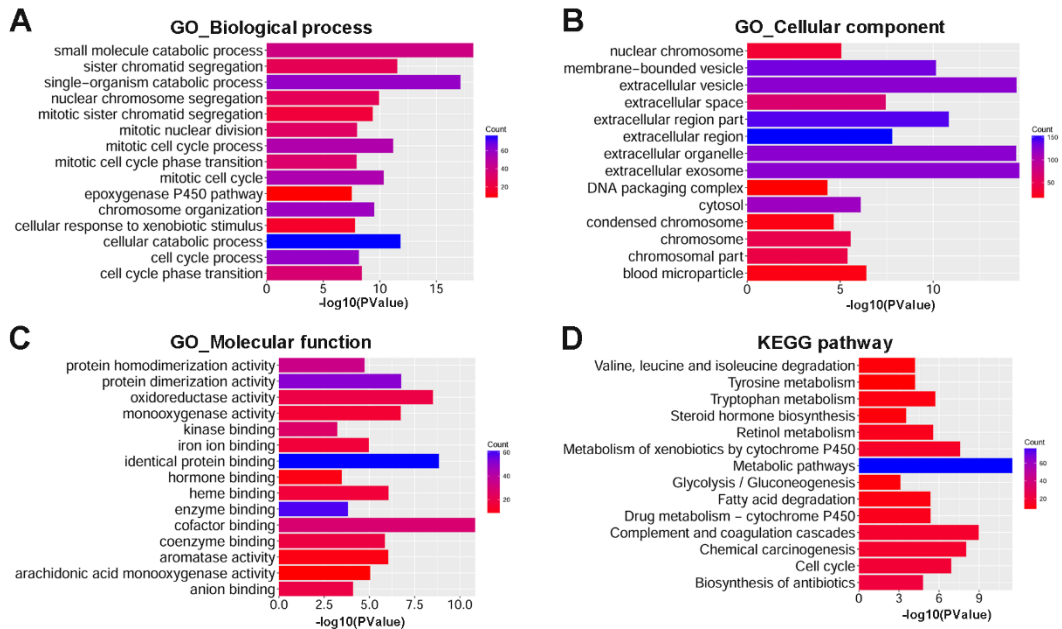
Supplementary table 1: Genes in module yellow

Module	Genes (n=362)
Yellow	<p>SDS , CYP3A4, AFP, ANG, HRG, TAT, PTTG1, GPC3, ADH1B, PCK1, CYP4F12, TTR, ABAT, AFM, HIST1H4E, SULT1C, SERPINC1, ALDH1L1, SULT2A1, HPD, CYP1A1, FETUB, CFB, CYP2C19, MBL2, FMO3, SLC22A1, IFI27, APCS, LYZ, AQP9, PSMB4, PON1, ALAS1, HIST1H2BF, AZGP1, NDRG1, ITIH4, HSD11B1, ADH1A, NTS, CTH, F12, MDK, AR, CYP27A1, EHHADH, SELENBP1, CYP2C18, CYP4F3, AGXT, EPH, F9, ALDH6A1, PODXL, BDH1, HPX, NEK2, PKM2, SERPINA6, C1S, PCNA, ADH6, ITIH1, NPR3, C1R, UGT2B7, TDO2, CYP3A5, APOC4, HMGA1, SLC38A3, LTB4DH, DCXR, MT1X, HIST1H1E, KNG1, YBX1, HRSP12, SAA4, HSD17B6, CYP2B6, CDKN3, C8B, TRIM28, RRM2, CYP1A2, GJB1, HIST1H2AE, CDO1, TYMS, FKBP1B, CYP2J2, EIF4EBP2, SORD, NR1I3, IGFALS, HGD, CPB2, C6, TM4SF4, PEBP1, SCP2, S100A9, CALU, DEK, SORBS2, ACOX2, MAT1A, HADH, PECL, COX8A, AKR1C4, UBE2C, ALDH3A1, ALDH1B1, XDH, ATF5, BIRC5, GADD45A, GPC5, CTSF, PROZ, ARHGEF16, PRDX6, HIST1H1C, PIK3R1, ACAA2, COL5A2, OASL, MAP4K4, SEC14L2, RHOB, TTPA, CD99, CFH, GSTA1, CAT, STIP1, ADD3, CCT5, RALY, ALDH5A1, TK1, PKLR, ADIPOR2, SLC10A1, DBN1, CADM1, OGDHL, MSH2, GAL3ST1, SMC4, HIST1H3H, UGP2, SNRPG, BAIAP2, FLJ20699, CUTL2, LMNB1, RGN, DSC3, F7, SPAG5, YWHAZ, ENPEP, ARID3A, PFDN4, MREG, CKAP4, IFIT1, NCOA3, SULT1A1, LEPROTL1, MMP11, CTSA, HGFAC, CD2AP, HDAC2, SCAMP3, HAAO, NUSAP1, MYBL2, ASAH1, ABCA8, VEGFB, TROAP, CHKA, CAPN3, LAMC1, CCT4, SMARCD1, CYP4A11, GPD1, ATP5G2, TCEA2, MCM4, G6PD, NCAPH, PLTP, ABHD2, PLP2, MOBK1B, INHBC, SNRPD1, GENX-3414, CSE1L, VHL, LCAT, ZNF217, ASS1, NEU1, NFKBIA, TOP2A, U2AF1, SYNGR2, TMOD1, RAB3GAP2, CRHBP, PTHLH, C5orf13, HNRPL, RRM1, FAAH, PDXDC1, F11, MAPRE3, TXNDC9, GHR, PFKFB1, STK39, SEC24D, SEC24B, SUZ12, IMPDH2 , MCM6, VGLL4, SNX27, CTSC, REPS2, CTNNAL1, MARCKS, SFRS9, MYCL1, C4BPA, SSBP1, MNAT1, ARSD, PTPN12, PRODH2, DBT, HIST1H2BJ, PRSS7, PIGC, ENO2, MTSS1, RORC, STIL, CDA, ESM1, KIAA0101, NCBP2, HIST1H2AD, ALPL, CDC20, CKAP5, CCNE2, VIL1, SAE2, METTL7A, HIST1H2BH, ALDH9A1, XPO1, SLC4A4, CDK2, MAPRE1, IL6ST, DDOST, PARP1, ACYP2, BUB1B, FAM114A1, MYL6B, ARPC2, SERPING1, PRC1, HMGCL, PTK7, ETFDH, E2F1, GNAZ, DDX39, ZWINT, CCNA2, NUP210, GPT, MARCKSL1, C12orf24, CCNB1, C20orf103, MPPED1, KIAA0100, ZNF124, MEOX2, PRKCD, PLK4, MLL, CDKN2C, XPC, DCK, GSTZ1, GPD2, DLG7, FOXK2, TETRAN, TFRC, ACAD, ADAM9, NT5C2, MELK, UNG, BCAM, PDLIM5, BRCA1, SRD5A1, CLEC4M, ACY1, NRG1, EAPP, IGF2BP3, PAFAH1B3, FOXM1, XLKD1, DNMI1, PPL, CRISP3, STCH, CDC27, BARD1, DR1, BLVRA, SLC35D1, TTK, GAS2L3, GLA, CCNF, PPP1R8, BTBD3, DCBLD2, CENPF, GINS1, NAP1L4, CDC6, PYGB, RFC4, KIF23, NOS2A, ZNF43, NCAPD2, DDX11, TACC3, NDC80</p>

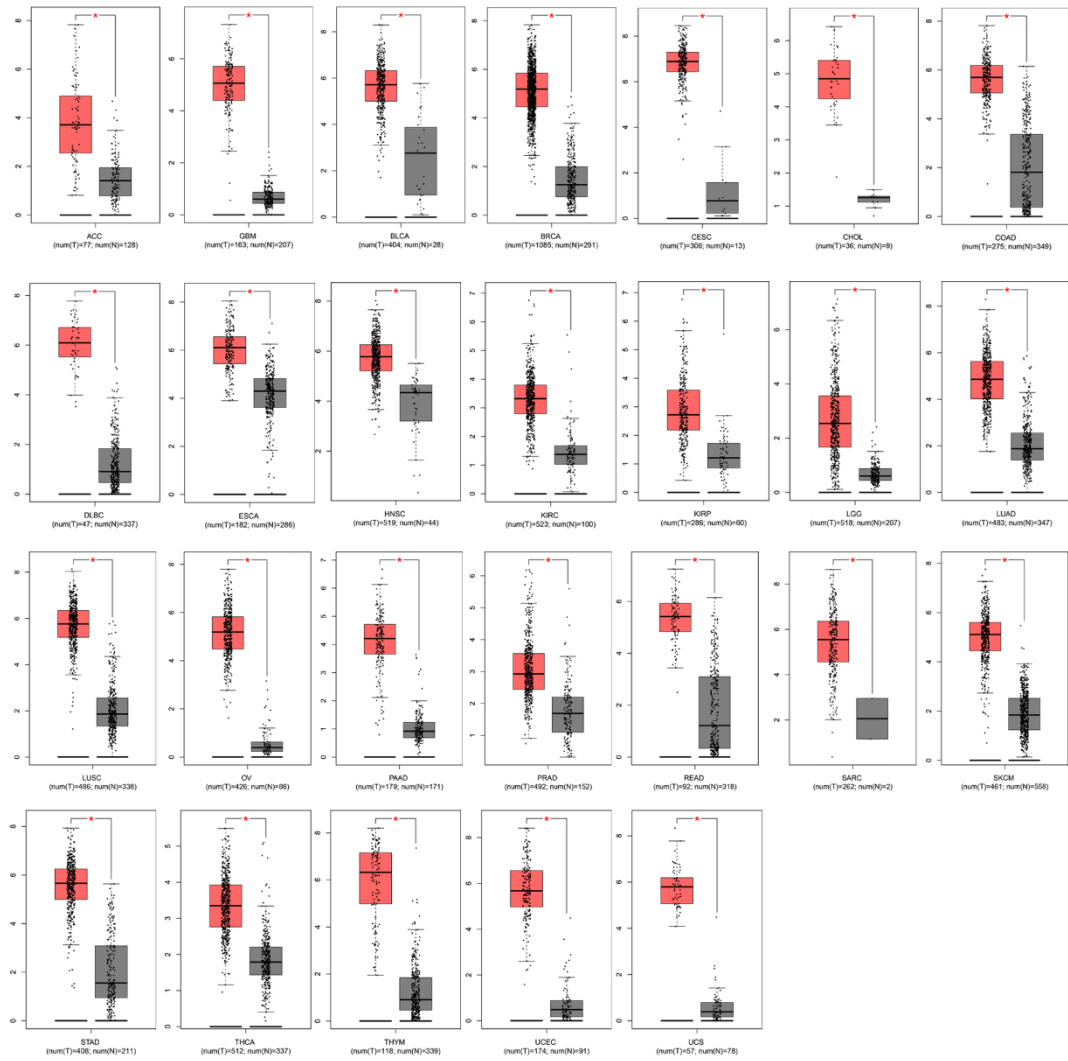
Supplementary table 2: clinical parameters of the patients

No.	Gender	Age (year)	Height (cm)	Weight (Kg)	MVI	Edmondson-Steiner grade
1	Male	51	172	51	-	III
2	Female	55	167	55	-	III
3	Female	49	158	52	-	III
4	Male	48	180	69	-	III

MVI: microvascular invasion



Supplementary Figure 1: GO functional and KEGG pathway enrichment analyses for genes in the interesting module. (A) The top significant GO biological process (B), GO cellular component (C), cellular component (D), and KEGG pathway enrichments.



Supplementary Figure 2: KIAA0101 overexpressed in multiple type of cancers based on TCGA database analyzed by GEPIA. $\text{Log}(\text{FC}) \geq 1$, and $*P < 0.05$ were set as criteria. ACC: adrenocortical carcinoma; BLCA: bladder urothelial carcinoma; BRCA: breast invasive carcinoma; CESC: cervical squamous cell carcinoma and endocervical adenocarcinoma; CHOL: cholangio carcinoma; COAD: colon adenocarcinoma; DLBC: lymphoid neoplasm diffuse large B-cell lymphoma; ESCA: esophageal carcinoma; GBM: glioblastoma multiforme; HNSC: head and neck squamous cell carcinoma; KICH: kidney chromophobe; KIRC: kidney renal clear cell carcinoma; KIRP: kidney renal papillary cell carcinoma; LGG: brain Lower grade glioma; LIHC: liver hepatocellular carcinoma; LUAD: lung adenocarcinoma; LUSC: lung squamous cell carcinoma; OV: ovarian serous cystadenocarcinoma; PAAD: pancreatic adenocarcinoma; PRAD: prostate adenocarcinoma; READ: rectum adenocarcinoma; SARC: Sarcoma; SKCM: skin cutaneous melanoma; STAD: stomach adenocarcinoma; THCA: thyroid carcinoma; THYM: thymoma; UCEC: uterine corpus endometrial carcinoma; UCS: uterine

carcinosarcoma.