

Supplemental table 1: Scoring criteria of the ALBI-CLIP and CLIP staging systems.

| Staging system | Variables | Score 0 | Score 1 | Score 2 |
|------------------|----------------------------|-----------------------------------|-------------------------------------|-----------------------------|
| Both | Tumor morphology | Uninodular & extension \leq 50% | Multinodular & extension \leq 50% | Massive & extension $>$ 50% |
| | Portal vein tumor thrombus | No | Yes | -- |
| | AFP, ng/mL | $<$ 400 | \geq 400 | -- |
| CLIP | Child-Pugh grade | A | B | C |
| ALBI-CLIP | ALBI grade | 1 (\leq -2.60) | 2 (-2.60 to -1.39) | 3 ($>$ -1.39) |

ALBI: albumin-to-bilirubin grade; CLIP: The Cancer of the Liver Italian Program; AFP: alpha fetoprotein.

Supplemental table 2: Pairwise comparison of receiver operating characteristic curves predicting overall survival.

| Overall survival | System | System | Difference | <i>P</i> value |
|------------------|-----------|--------|------------|----------------|
| 3-month | ALBI-CLIP | CLIP | 0.026 | 0.104 |
| | ALBI-CLIP | TNM | 0.070 | 0.046 |
| | CLIP | TNM | 0.044 | 0.254 |
| 6-month | ALBI-CLIP | CLIP | 0.019 | 0.113 |
| | ALBI-CLIP | TNM | 0.063 | 0.009 |
| | CLIP | TNM | 0.045 | 0.071 |
| 1-year | ALBI-CLIP | CLIP | 0.010 | 0.337 |
| | ALBI-CLIP | TNM | 0.053 | 0.031 |
| | CLIP | TNM | 0.043 | 0.074 |
| 2-year | ALBI-CLIP | CLIP | 0.006 | 0.496 |
| | ALBI-CLIP | TNM | 0.049 | 0.043 |
| | CLIP | TNM | 0.043 | 0.072 |

ALBI: albumin-to-bilirubin grade; CLIP: The Cancer of the Liver Italian Program; TNM: tumor-node-metastasis.