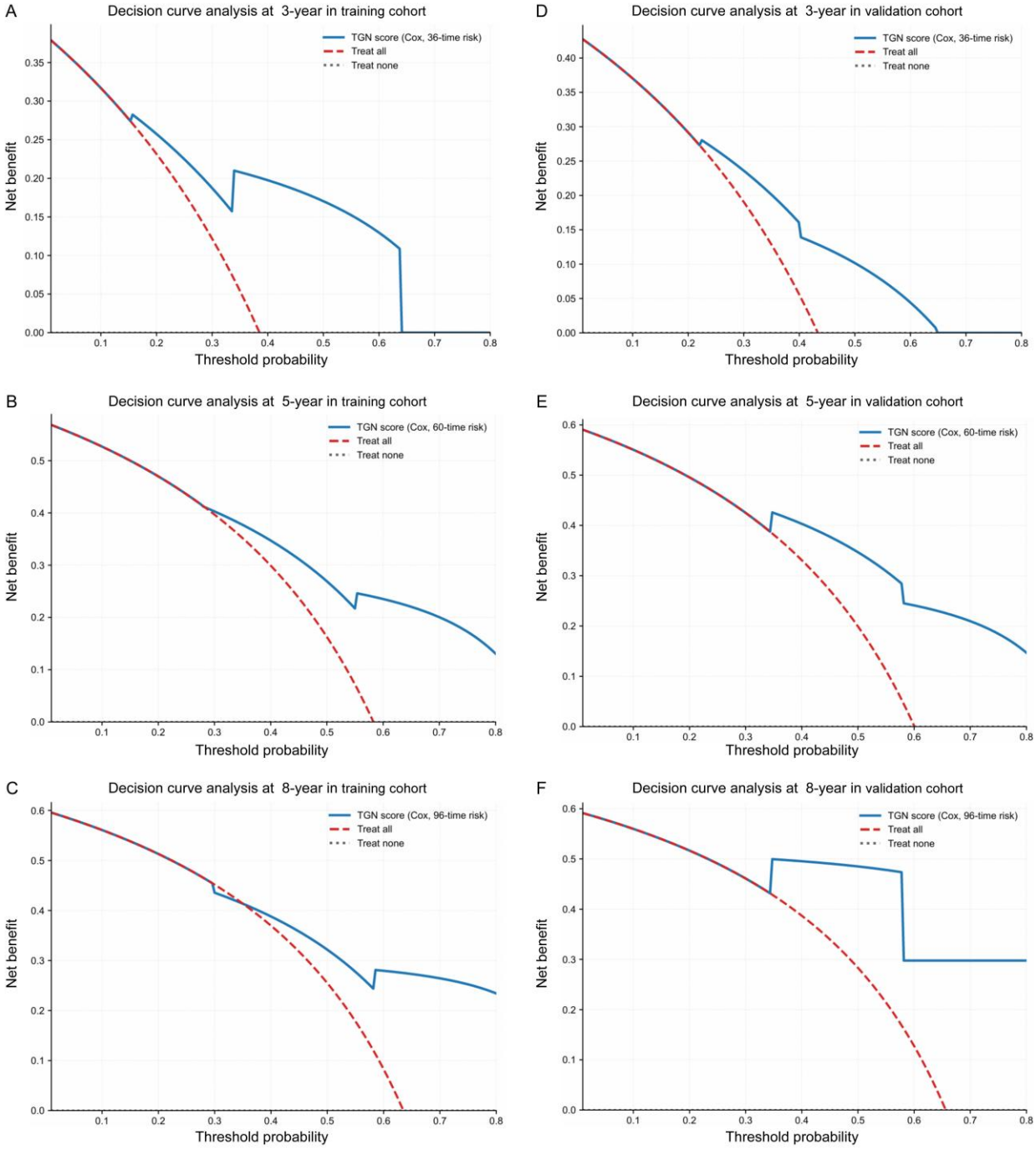
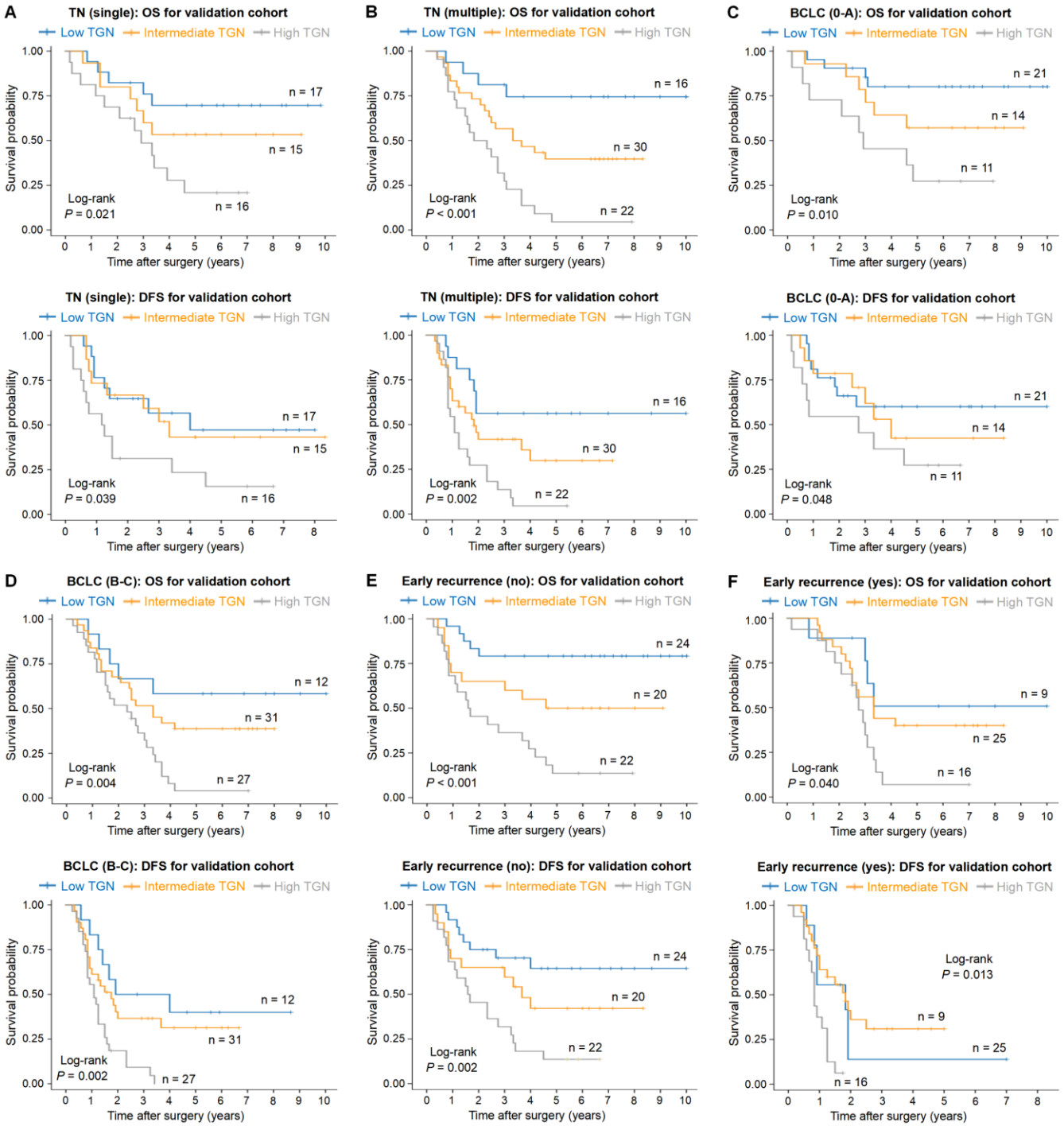
## Supplementary material




**Supplementary Figure 1 DCA of the TGN scoring model for survival at 3, 5, and 8 years in the training (A, B, C) and validation (D, E, F) cohorts.**




**Supplementary Figure 2 Subgroup analyses of survival based on clinical characteristics in the validation cohort.** The TGN score demonstrated excellent discriminative performance across all subgroups (A-F). Log-rank test results were as follows: (A) single tumor (log-rank, OS: P = 0.021, DFS: P = 0.039); (B) multiple tumors (log-rank, OS: P < 0.001, DFS: P = 0.002); (C) BCLC stage (0-A) (log-rank, OS: P = 0.010, DFS: P = 0.048); (D) BCLC stage (B-C) (log-rank, OS: P = 0.004, DFS: P = 0.002); (E) Without early recurrence (log-rank, OS: P < 0.001, DFS: P = 0.002); (F) Early recurrence (log-rank, OS: P = 0.040, DFS: P = 0.013). TN, tumor number; BCLC,

Barcelona Clinic Liver Cancer.