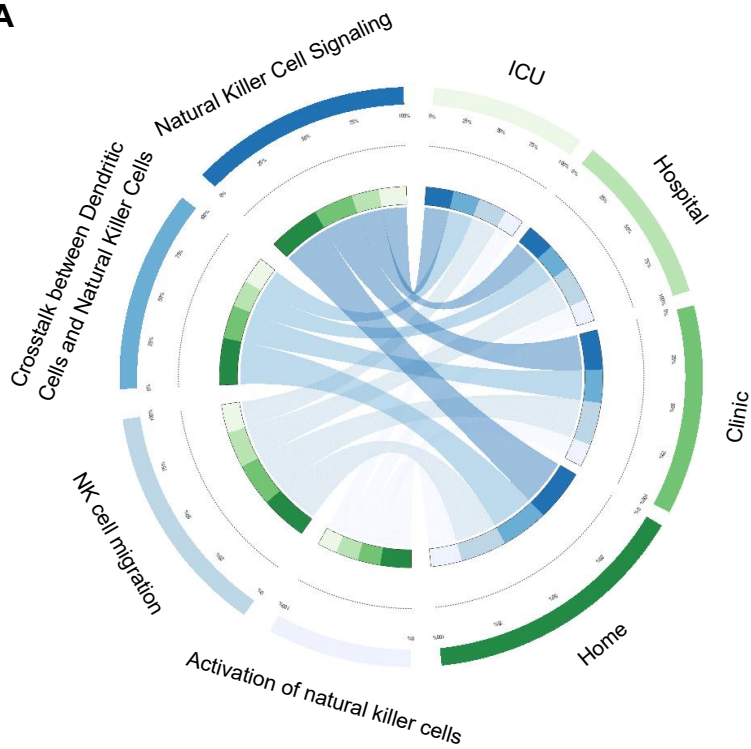


Supplementary Figure S1| **Changing patterns of tumor angiogenesis inhibition.** **A**, NO phase, genes involved in inhibiting the tumor angiogenesis pathway. **B**, BS phase, genes involved in inhibiting the tumor angiogenesis pathway. **C**, SP phase, genes involved in inhibiting the tumor angiogenesis pathway. **D**, AS phase, genes involved in inhibiting the tumor angiogenesis pathway. **E**, PS phase, genes involved in inhibiting the tumor angiogenesis pathway.

A

▲ **Activation z-score**

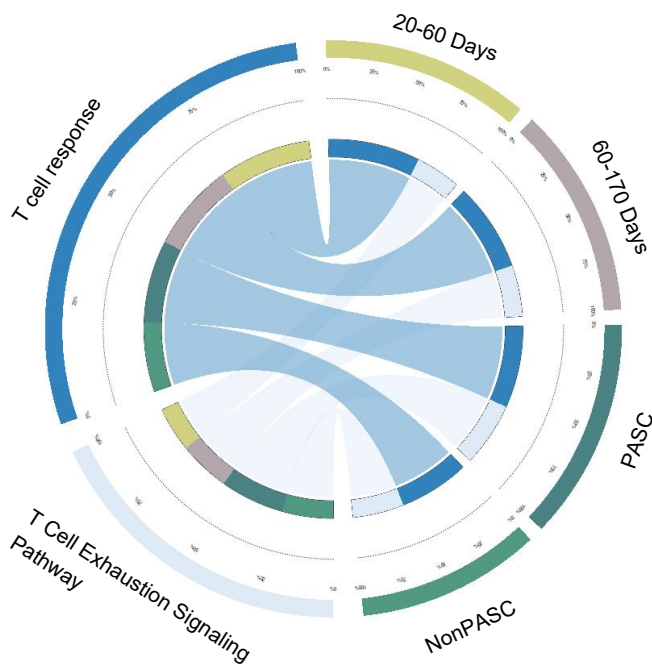
min: 1.54
max: 4.12

Diseases and Bio Functions

■ Activation of natural killer cells
■ NK cell migration
■ Crosstalk between Dendritic Cells and NK Cells
■ Natural Killer Cell Signaling

Long COVID ($\Delta T > 20$ Days), Recovering

■ ICU
■ Hospital
■ Clinic
■ Home

B

▲ **Activation z-score**

min: 1.65
max: 3.40

Diseases and Bio Functions

■ T Cell Exhaustion Signaling Pathway
■ T cell response

Long COVID ($\Delta T > 20$ Days), Recovered, Home

■ 20-60 Days
■ 60-170 Days
■ PASC
■ NonPASC

Supplementary Figure S2| **Circos plot shows the representative abnormal activation phenotype of NK and T cells in different groups.**

A, Different activation z-score of NK cell related Diseases and Bio Functions in four severity states during the recovery period presented by circos plots. The circos plot represented activation z-score values of each Functions. All z-scores are greater than 0. The minimum value is 1.54, and the maximum value is 4.12. **B**, The representative abnormal activation phenotype of T cells in different groups after the recovery of patients with long COVID-19. The circos plot represented activation z-score values of each Functions. All z-scores are greater than 0. The minimum value is 1.65, and the maximum value is 3.40.