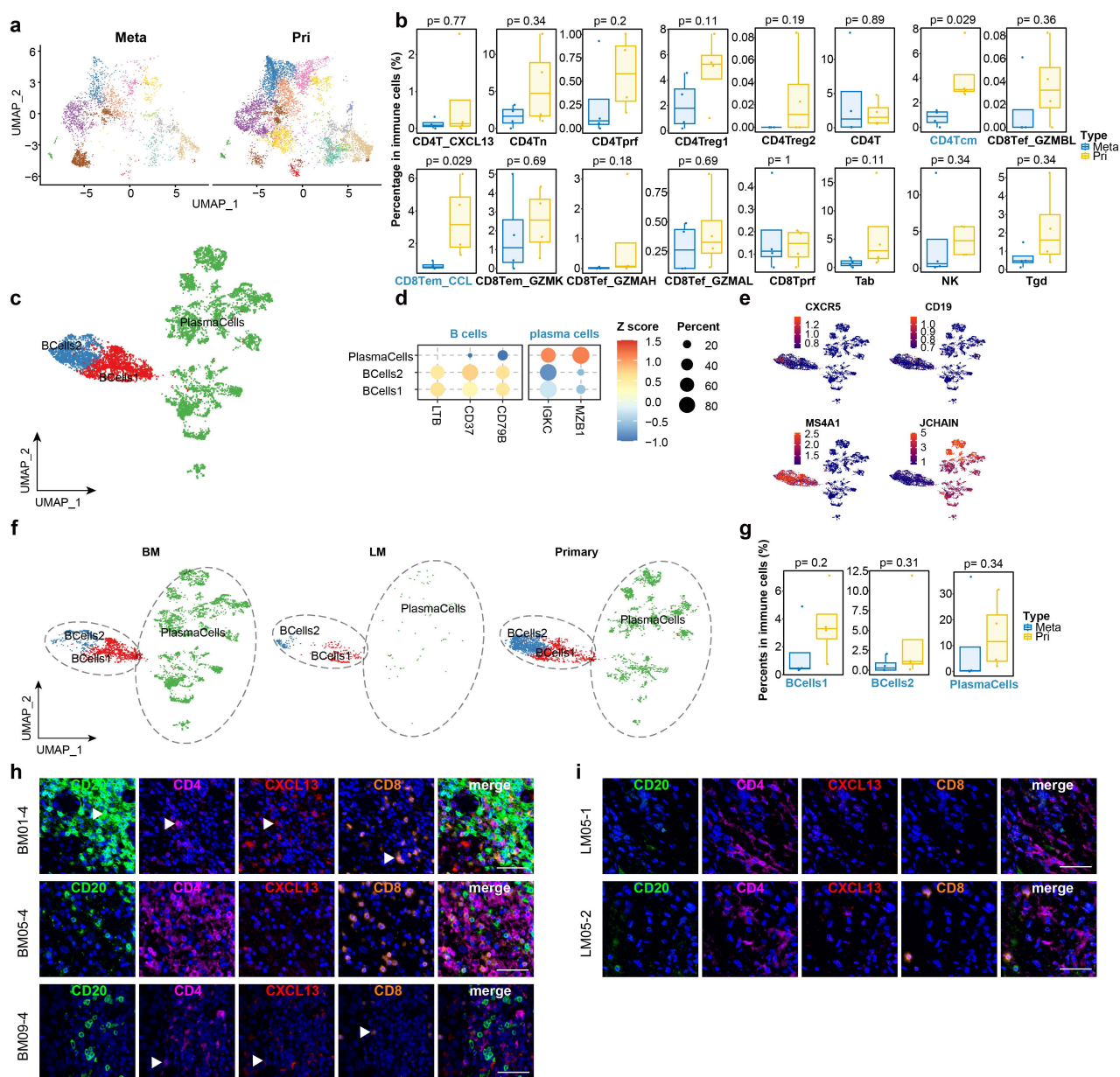


Supplementary Fig. S4



Supplementary Fig. S4: Lymphocyte difference between BM and LM, related to Fig. 3.

(a) UMAP visualization of T/NK cells, split by primary and CNSm. Abbreviations: pri, primary cancer; meta, metastasis cancer. (b) Cell ratio differences between primary cancer and CNSm. Each dot represented 1 sample. Box middle lines, median values; box limits, upper and lower quartiles; box whiskers, $1.5 \times$ the interquartile range. Significance was calculated by Wilcoxon test. Abbreviations: pri, primary cancer; meta, CNSm. (c) UMAP visualization of B cells. B cells were annotated into PlasmaCells, BCells1, and BCells2. (d) B cell marker gene dot plot. Gene expression was scaled by columns, and dot size was scaled by the percent of each gene expression in cell types. (e) Expression patterns of representative normalized feature genes in B cells. (f) UMAP visualization of T/NK cells, split by BM, LM, and primary. Grey dashed circles marked differences in B cells. (g) Cell ratio differences between primary cancer and CNSm. (h) Selected genes stained by multiple channel IHC in three BM patients. Scale bar: 50 μm . (i) Selected genes stained by multiple channel IHC in LM patient. Scale bar: 50 μm .