Supplemental Material

Supplemental Figure 1. Ferritin, CRP, and treatment over time in patients who did not develop macrophage activation-like syndrome following CAR T cell therapy

Supplemental Figure 1 Legend: Ferritin (red), C-reactive protein (CRP) (blue), and administration of tocilizumab (orange), systemic steroids (yellow), and/or anakinra (yellow) over time for the 43 patients who did not develop MAS-L.

Supplemental Figure 2: Count Recovery between patients who developed macrophage activation-like syndrome (MAS-L) following CAR T cell therapy vs patients who did not

Supplemental Figure 2 Legend: Landmark Analysis of count recovery for patients who developed MAS-L (n = 12; non-hatched bars) vs patients who did not develop MAS-L (n = 43; hatched bars). Asterisks denote statistically significant differences (p < 0.05).

Supplemental Figure 3. Overall Response Rate, Overall Survival and Relapse Free Survival

Supplemental Figure 3 Legend: (A) Overall response rate between, (B) Overall Survival, and (C) Relapse-free survival between patients who developed MAS-L (n = 12) and patients who did not (n = 43)

Supplemental Table 1. Univariate Logistic Regression of Patient and Disease Characteristics for the Development of macrophage activation-like syndrome (MAS-L) following CAR T cell therapy

| Variable                                      | Odds Ratio (95% CI) | p-value |
|-----------------------------------------------|---------------------|---------|
| Sex (Male)                                    | 4.17 (0.99 – 17.6)  | 0.052   |
| Baseline %BM Plasma Cells, 10 unit increase   | 1.03 (0.86 – 1.23)  | 0.76    |
| Baseline FLC, K/L ratio, 100 unit increase    | 0.95 (0.86 – 1.06)  | 0.38    |
| Baseline M-protein, g/dL, 1 unit increase     | 1.31 (0.87 – 1.97)  | 0.2     |
| Infection in 30 days prior to CART           | 29.2 (5.54 – 154)   | <0.001  |
| Ferritin on Day 1 of CART, ug/L, 1000 unit increase | 1.21 (0.75 – 1.93) | 0.44    |
| D-dimer on Day 1 of CART, ng/mL, 1000 unit increase | 1.12 (0.88 – 1.41) | 0.34    |
| CRP on Day 1 of CART, mg/L, 100 unit increase | 0.78 (0.05 – 11.9)  | 0.86    |

Supplemental Figure 1
