

Mesenchymal stromal cell delivery of oncolytic immunotherapy improves CAR-T cell antitumor activity

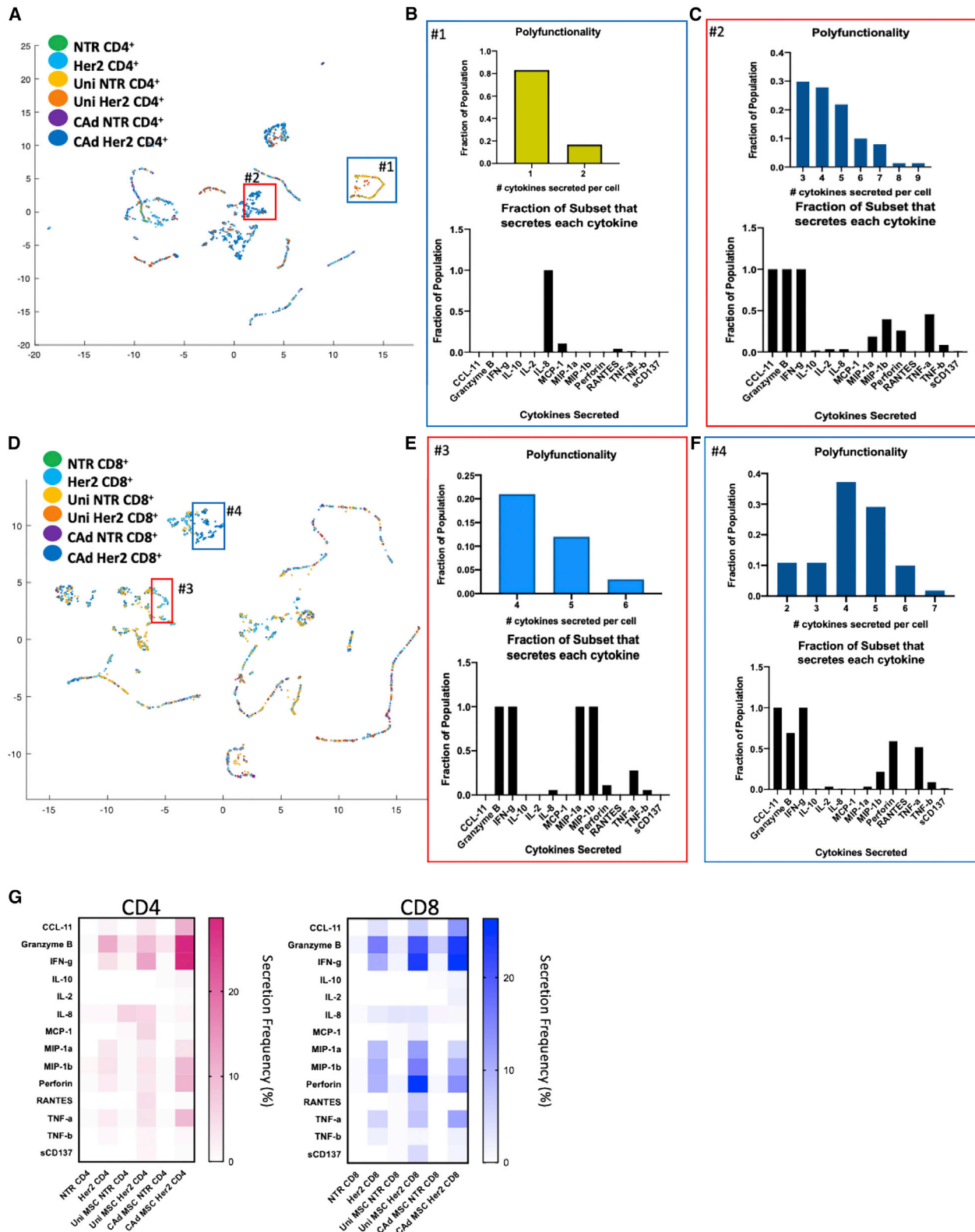
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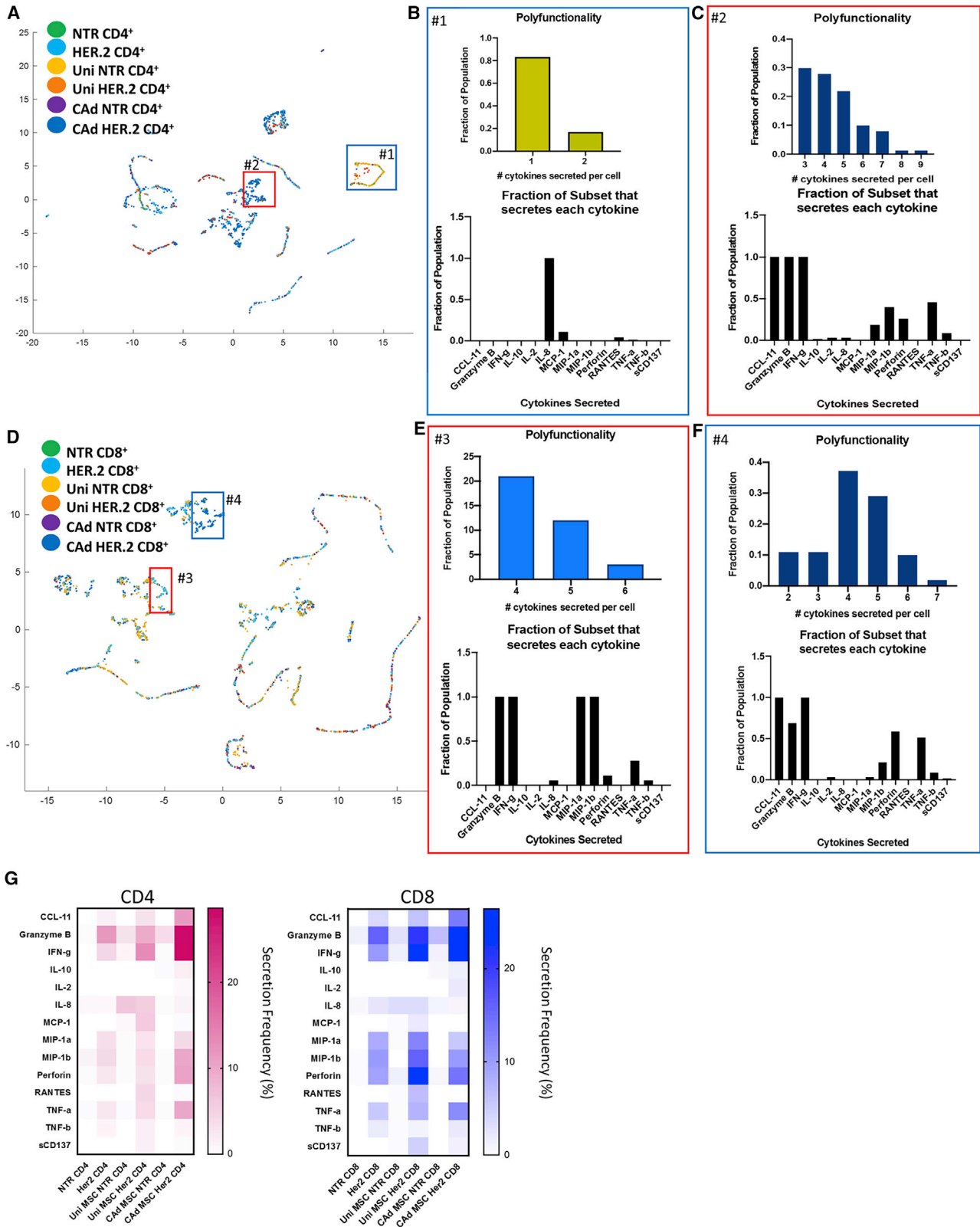
In the originally published version of this article, a reference to Figure 2 was incorrect in the text, and the Figure 3 legend description was reversed for Figures 3E and 3F. The y-axis in Figure 3E was represented as a percentage rather than a fraction. The data remain unchanged. The figure and legend have now been corrected online. The authors regret this error.



(legend on next page)

Figure 3. CAdIL-12_PD-L1 MSCs enhance HER.2 CAR-T cell polyfunctionality (Corrected)

Uninfected MSCs or CAd IL-12_PD-L1 infected MSCs were co-cultured at a 1:10 ratio to A549 tumor cells for 48 h. NTR or CAR-T cells were then added to the culture or added to tumor only. We isolated T cells 20 h later and selected for CD4 and CD8 populations. We measured single cell cytokine secretion on the Isoplexis platform for 32 different cytokines. (A and D) Umap analysis shows clusters of CD4 (A) and CD8 (D) cells color coded by each condition. We determined polyfunctionality by the number of cytokines secreted from each cell and represented as a fraction in selected population. (B) Polyfunctionality and secreted cytokines for inset #1, uninfected MSC, and NTR CD4 T cells. (C) Polyfunctionality and secreted cytokines for inset #2, CAd MSC, and HER.2 CD4 T cells. (E) Polyfunctionality and secreted cytokines for inset #3, non-MSC, and HER.2 CD8 T cells. (F) Polyfunctionality and secreted cytokines for inset #4, CAd MSC and HER.2 CD8 T cells. (G) Overall secretion frequency of CD4 and CD8 populations. Percent of population secreting is represented by color intensity for each detected cytokine. NTR, n = 2 donors; HER2, n = 3 donors for each MSC condition.



(legend on next page)

Figure 3. CAdIL-12_PD-L1 MSCs enhance HER.2 CAR-T cell polyfunctionality (Original)

Uninfected MSCs or CAd IL-12_PD-L1 infected MSCs were co-cultured at a 1:10 ratio to A549 tumor cells for 48 h. NTR or CAR-T cells were then added to the culture or added to tumor only. We isolated T cells 20 h later and selected for CD4 and CD8 populations. We measured single cell cytokine secretion on the Isoplexis platform for 32 different cytokines. (A and D) Umap analysis shows clusters of CD4 (A) and CD8 (D) cells color coded by each condition. We determined polyfunctionality by the number of cytokines secreted from each cell and represented as a fraction in selected population. (B) Polyfunctionality and secreted cytokines for inset #1, uninfected MSC, and NTR CD4 T cells. (C) Polyfunctionality and secreted cytokines for inset #2, CAd MSC, and HER.2 CD4 T cells. (E) Polyfunctionality and secreted cytokines for inset #3, CAd MSC and HER.2 CD8 T cells. (F) Polyfunctionality and secreted cytokines for inset #4, non-MSC, and HER.2 CD8 T cells. (G) Overall secretion frequency of CD4 and CD8 populations. Percent of population secreting is represented by color intensity for each detected cytokine. NTR, n = 2 donors; HER2, n = 3 donors for each MSC condition.