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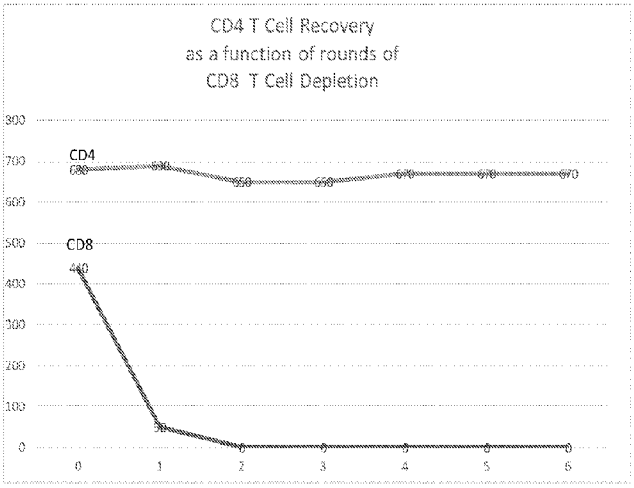
(54) **Title:** IMPROVED MANUFACTURING PROCEDURES FOR CELL BASED THERAPIES

Figure 1.



(57) **Abstract:** CAR T cell therapies have shown promise in treating human blood cell cancer. The preparation of CAR T cells involves many complex, time consuming steps prior to infusion of the CAR T cells into a cancer patient. One step in the process to create CAR T cells often involves using magnetic separation technologies to isolate specific subsets of T cells prior to creating the CAR T cells. When using current magnetic separation technologies to remove undesired cell populations the recovery of the desired cell population can be as low as 50-70% or even lower and the procedures often take 30-60 minutes. In the case of autologous CAR T cell therapies such cell loss is often not acceptable. The present invention offers means to improve the recovery of desired cells to close to 100% very rapidly thus significantly improving a step in the manufacture of CAR T cells and in many cases will make such therapy possible for a larger patient population.

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