METHODS OF TREATING ACUTE MYELOID LEUKEMIA AND MULTIPLE MYELOMA USING NATURAL KILLER CELLS

ABSTRACT

Provided herein are methods of treating acute myeloid leukemia (AML) and multiple myeloma (MM) by administering an effective amount of a cell population comprising natural killer cells, wherein the cell population comprising natural killer cells is produced by a three- stage method comprising culturing a population of hematopoietic stem or progenitor cells in media comprising stem cell mobilizing factors, e.g., three-stage methods of producing NK cells in media comprising stem cell mobilizing factors starting with hematopoietic stem or progenitor cells from cells of the placenta, for example, from placental perfusate (e.g., human placental perfusate) or other tissues, for example, umbilical cord blood or peripheral blood. Further provided herein are methods of using the NK cells produced by the three-stage methods provided herein to suppress the proliferation of acute myeloid leukemia cells. In certain embodiments, the NK cells produced by the three-stage methods described herein are used in combination with IL- 2.

[No Figure]