AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Previously presented) A human memory T cell comprising a nucleic acid sequence that encodes a chimeric antigen receptor (CAR), wherein the CAR comprises a CD19 antigen binding domain, a transmembrane domain, a co-stimulatory signaling region and a CD3 zeta signaling domain, wherein the human memory T cell is of a human having cancer.

2. (Previously presented) The human memory T cell of claim 1, wherein the CD19 antigen binding domain is a Fab or scFv.

3. (Previously presented) The human memory T cell of claim 2, wherein the CD19 antigen binding domain is a scFv.

4. (Currently amended) The human memory T cell of claim 1, wherein the transmembrane domain comprises a CD8 transmembrane domain.

5. (Previously presented) The human memory T cell of claim 1, wherein the co-stimulatory signaling region is CD27 or 4-1BB.

6. (Previously presented) The human memory T cell of claim 1, wherein the CAR further comprises a hinge region.

7. (Previously presented) The human memory T cell of claim 6, wherein the hinge region comprises a CD8α hinge region.

8. (Previously presented) A human memory T cell comprising a chimeric antigen receptor (CAR), wherein the CAR comprises a CD19 antigen binding domain, a transmembrane domain, a co-stimulatory signaling region and a CD3 zeta signaling domain, wherein the human memory T cell is of a human having cancer.

9. (Previously presented) The human memory T cell of claim 8, wherein the CD19 antigen binding domain is a Fab or scFv.

10. (Previously presented) The human memory T cell of claim 9, wherein the CD19 antigen binding domain is a scFv.

11. (Currently amended) The human memory T cell of claim 8, wherein the transmembrane domain comprises a CD8 transmembrane domain.

12. (Previously presented) The human memory T cell of claim 8, wherein the co-stimulatory signaling region is CD27 or 4-1BB.

13. (Previously presented) The human memory T cell of claim 8, wherein the CAR further comprises a hinge region.

14. (Previously presented) The human memory T cell of claim 13, wherein the hinge region comprises a CD8α hinge region.

15. (Currently amended) A persisting population of human T cells comprising a nucleic acid sequence that encodes a chimeric antigen receptor (CAR), wherein the CAR comprises a CD19 antigen binding domain, a transmembrane domain, a co-stimulatory signaling region and a CD3 zeta signaling domain, wherein the persisting population of T cells are of a human having cancer and when administered to the human, persist in the human for at least one month.

16. (Previously presented) The persisting population of human T cells of claim 15, wherein the CD19 antigen binding domain is a Fab or scFv.

17. (Previously presented) The persisting population of human T cells of claim 16, wherein the CD19 antigen binding domain is a scFv.

18. (Currently amended) The persisting population of human T cells of claim 15, wherein the transmembrane domain comprises a CD8 transmembrane domain.

19. (Previously presented) The persisting population of human T cells of claim 15, wherein the co-stimulatory signaling region is CD27 or 4-1BB.

20. (Previously presented) The persisting population of human T cells of claim 15, wherein the CAR further comprises a hinge region.

21. (Previously presented) The persisting population of human T cells of claim 20, wherein the hinge region comprises a CD8α hinge region.

22. (Currently amended) A persisting population of human T cells comprising a chimeric antigen receptor (CAR), wherein the CAR comprises a CD19 antigen binding domain, a transmembrane domain, a co-stimulatory signaling region and a CD3 zeta signaling domain, wherein the persisting population of T cells are of a human having cancer and when administered to the human, persist in the human for at least one month.

23. (Previously presented) The persisting population of human T cells of claim 22, wherein the CD19 antigen binding domain is a Fab or scFv.

24. (Previously presented) The persisting population of human T cells of claim 23, wherein the CD19 antigen binding domain is a scFv.

25. (Currently amended) The persisting population of human T cells of claim 22, wherein the transmembrane domain comprises a CD8 transmembrane domain.

26. (Previously presented) The persisting population of human T cells of claim 22, wherein the co-stimulatory signaling region is CD27 or 4-1BB.

27. (Previously presented) The persisting population of human T cells of claim 22, wherein the CAR further comprises a hinge region.

28. (Previously presented) The persisting population of human T cells of claim 27, wherein the hinge region comprises a CD8α hinge region.