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 <u>a</u> 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 <u>a</u> 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 <u>a</u> 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 CD8 α 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 <u>a</u> 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 CD8 α hinge region.

