

WHAT IS CLAIMED IS:

1. A cell comprising a heterologous nucleic acid molecule comprising a nucleotide sequence encoding CD40L and CXCL13.
2. The cell of claim 1, wherein the CD40L comprises an amino acid sequence having at least 90% sequence identity to SEQ ID NO: 4, and wherein the CXCL13 comprises an amino acid sequence having at least 90% sequence identity to SEQ ID NO: 3.
3. The cell of claim 1, wherein the cell heterologously expresses CD40L and CXCL13.
4. The cell of claim 1, wherein the cell is an isolated cell.
5. The cell of claim 1, wherein the cell is a T cell, such as a CD4+ T cell.
6. The cell of claim 1, wherein the cell is transduced or transfected with a second and/or third nucleic acid that encodes a heterologous protein or target antigen.
7. The cell of claim 6, wherein the second nucleic acid comprises human immunodeficiency virus (HIV) genome, and wherein the HIV genomic nucleic acid comprises a mutation in the retroviral reverse transcriptase, and further wherein the HIV genomic nucleic acid does not encode a retroviral packaging signal, creating a disabled HIV genomic construct.
8. The cell of claim 6, wherein the target antigen is a HIV protein.
9. The cell of claim 8, wherein the HIV protein is one or more of HIV Tat (full length or isoforms of 72 and 101 amino acids in length), Rev, Pol, GP120, GP160, GP41, env, Gag, Gag-Pol, Nef, Vpr, Vpu, or Vif, or any combination thereof.
10. The cell of any one of claims 1-9, wherein the cell is a CD4+ T cell.
11. A CD4+ T-cell comprising one or more heterologous nucleic acid molecules encoding for an amino acid sequence having at least 90% sequence identity to SEQ ID NO: 3, and/or an amino acid sequence having at least 90% sequence identity to SEQ ID NO: 4.
12. The CD4+ T-cell of claim 11, wherein the cell expresses CD40L.
13. The CD4+ T-cell of claims 11 and 12, wherein the cell expresses CXCL13.
14. The CD4+ T-cell of claim 11, wherein the cell expresses CD40L and CXCL13.
15. The CD4+ T-cell of claim 11, wherein the cell is an isolated CD4+ T-cell.
16. A CD4+ T-cell comprising a heterologous CD40L protein and heterologous CXCL13 protein.

17. The CD4+ T-cell of claim 16, further comprising heterologous nucleic acid molecule comprising human immunodeficiency virus (HIV) genome, and wherein the HIV genomic nucleic acid comprises a mutation in the retroviral reverse transcriptase, and further wherein the HIV genomic nucleic acid does not encode a retroviral packaging signal, creating a disabled HIV genomic construct.

18. The CD4+ T-cell of claim 16, further comprising a heterologous nucleic acid molecule encoding a target antigen.

19. The CD4+ T-cell of claim 18, wherein the target antigen is a HIV protein.

20. The CD4+ T-cell of claim 19, wherein the HIV protein is one or more of HIV Tat (full length or isoforms of 72 and 101 amino acids in length), Rev, Pol, GP120, GP160, GP41, env, Gag, Gag-Pol, Nef, Vpr, Vpu, or Vif, or any combination thereof.

21. A method of treating HIV in a subject comprising administering to the subject a composition comprising administering an effective amount of any of the cells of any one of claims 1-20.

22. The method of claim 22, wherein the composition is a pharmaceutical composition.

23. The method of claim 21, wherein the composition is administered intravenously or by infusion.

24. The method of any one of claims 21-23, wherein the cells are allogeneic to, or not HLA-matched to the subject.

25. The method of any one of claims 21-23, wherein the cells are autologous to the subject.

26. The method of any one of claims 21-25, wherein, the dosage of cells in the composition is from about 1×10^6 to about 5×10^6 .

27. A method for increasing immune response in a subject in need thereof, comprising administering an effective amount of any of the cells of any one of claims 1-20.

28. The method of claim 27, wherein the increased immune response is against a target antigen.

29. The method of claim 28, wherein the target antigen is a HIV protein.

30. The method of claim 29, wherein the HIV protein is one or more of HIV Tat (full length or isoforms of 72 and 101 amino acids in length), Rev, Pol, GP120, GP160, GP41, env, Gag, Gag-Pol, Nef, Vpr, Vpu, or Vif, or any combination thereof.

31. The method of any of claims 27-29, wherein the cells are allogeneic to the subject.

32. The method of any of claims 27-29, wherein the cells are not HLA-matched with the patient.

33. The method of any of claims 27-32, wherein the dosage of cells ranges from about $1-5 \times 10^6$.

34. The method of any of claims 27-33, wherein the immune response is against a viral infection, wherein the viral infection can be a human immunodeficiency virus (HIV) infection.

35. The method of any of claims 21-34, wherein the treatment or increasing the immune response is repeated periodically for time frames of from once every week, to once every 2 weeks, to once every 3 weeks, to once per month, to once every two months, to once every 3 months, to once every 4 months, to once every 5 months, to once every 6 months, or once every 7 months, or once every 8 months, or once every 9 months, or once every 10 months, or once every 11 months, or once annually as a maintenance treatment for as long as the subject exhibits improvement, decreased or undetectable viral titer, or stable/non-progressing disease.

36. The method of any of claims 21-35, wherein cellular and humoral immunity are induced in the subject.