CLAIMS

1. A use of a compound that reduces the activity or expression of a Programmed Cell Death- 1 (PD-I) polypeptide in the manufacture of a medicament for the treatment of a symptom of a persistent viral infection in a subject, wherein the compound is an anti-PD-1 antibody, an ant-PD-L1 antibody, an anti-PD-L2 antibody, an anti-PD-1 RNAi, an anti-PD-L1 RNAi, an anti-PD-L2 RNAi, an anti-PD-1 antisense RNA, an anti-PD-L1 antisense RNA, an anti-PD-L2 antisense RNA, a dominant negative PD-1 protein, a dominant negative PD-L1 protein, or a dominant negative PD-L2 protein.

2. The use of claim 1, wherein said persistent viral infection is an infection with a human immunodeficiency virus (HIV).

3. The use of claim 1, wherein said compound reduces the activity of a PD-1 ligand (PD-L1) or a PD-1 ligand 2 (PD-L2).

4. The use of claim 1, wherein said compound increases the cytotoxic T-cell activity in said subject.

5. The use of claim 4, wherein said cytotoxic T-cell activity is cytokine production, T cell proliferation, or infectious agent clearance.

6. The use of claim 1, wherein said persistent infection is an infection with a human T-lymphotrophic virus (HTLV), a herpes virus, an Epstein-Barr virus, or a human papilloma virus.

7. The use of claim 5, wherein said cytokine is IFNγ, TNFα, or IL-2.

8. The use of claim 1, wherein said anti-PD-1 antibody, an ant-PD-L1 antibody, or an anti-PD-L2 antibody is a monoclonal antibody, a

humanized antibody, a deimmunized antibody, or an Ig fusion protein.

9. The use of claim 1, further comprising administering to said subject a vaccine.

10. The use of claim 9, wherein said vaccine comprises an adjuvant or a prime booster shot.

11. The use of claim 1, further comprising administering to said subject a second compound.

12. The use of claim 11, wherein said second compound is an antiviral compound.

13. The use of claim 12, wherein said second compound is an anti-CTLA-4 antibody, an anti-BTLA antibody, an anti-CD28 antibody, an anti-ICOS antibody, an anti- ICOS- L antibody, an anti-B7-1 antibody, an antl-B7-2 antibody, an anti-B7-H3 antibody, or an anti-B7-H4 antibody.

14. The use of claim 1, wherein said subject is a human.

15. A use of an antigen-specific T cell that has been contacted with a compound that reduces the expression or activity of a PD-1 polypeptide in said cell in the manufacture of a medicament for the treatment of a symptom of a persistent infection with a virus.

16. The use of claim 18, wherein the subject is further administered an antigen from the virus.

CLAIMS

1. A use of a compound that reduces the activity or expression of a Programmed Cell Death- 1 (PD-I) polypeptide in the manufacture of a medicament for the treatment of a symptom of a persistent viral infection in a subject, wherein the compound is an anti-PD-1 antibody, an anti-PD-L1 antibody, an anti-PD-1 RNAi, an anti-PD-L1 RNAi, an anti-PD-1 antisense RNA, an anti-PD-L1 antisense RNA, a dominant negative PD-1 protein, or a dominant negative PD-L1 protein.

2. The use of claim 1, wherein said persistent viral infection is an infection with a human immunodeficiency virus (HIV).

3. The use of claim 1, wherein said compound reduces the activity of a PD-1 ligand (PD-L1).

4. The use of claim 1, wherein said compound increases the cytotoxic T-cell activity in said subject.

5. The use of claim 4, wherein said cytotoxic T-cell activity is cytokine production, T cell proliferation, or infectious agent clearance.

6. The use of claim 1, wherein said persistent infection is an infection with a human T-lymphotrophic virus (HTLV), a herpes virus, an Epstein-Barr virus, or a human papilloma virus.

7. The use of claim 5, wherein said cytokine is IFNγ, TNFα, or IL-2.

8. The use of claim 1, wherein said anti-PD-1 antibody or an anti-PD-L1 antibody is a monoclonal antibody, a humanized antibody, a deimmunized antibody, or an Ig fusion protein.

9. The use of claim 1, further comprising administering to said subject a vaccine.

10. The use of claim 9, wherein said vaccine comprises an adjuvant or a prime booster shot.

11. The use of claim 1, further comprising administering to said subject a second compound.

12. The use of claim 11, wherein said second compound is an antiviral compound.

13. The use of claim 12, wherein said second compound is an anti-CTLA-4 antibody, an anti-BTLA antibody, an anti-CD28 antibody, an anti-ICOS antibody, an anti- ICOS- L antibody, an anti-B7-1 antibody, an anti-B7-2 antibody, an anti-B7-H3 antibody, or an anti-B7-H4 antibody.

14. The use of claim 1, wherein said subject is a human.

15. A use of an antigen-specific T cell that has been contacted with a compound that reduces the expression or activity of a PD-1 polypeptide in said cell, wherein said compound is is an anti-PD-1 antibody, an anti-PD-L1 antibody, an anti-PD-1 RNAi, an anti-PD-L1 RNAi, an anti-PD-1 antisense RNA, an anti-PD-L1 antisense RNA, a dominant negative PD-1 protein, or a dominant negative PD-L1 protein, in the manufacture of a medicament for the treatment of a symptom of a persistent infection with a virus.

16. The use of claim 15, wherein the subject is further administered an antigen from the virus.