What is claimed:

1. A method of treating brain cancer in a subject, comprising:

(a) measuring an expression level of a miR-331-3p miRNA comprising SEQ ID NO: 30 or isomiRs thereof and a miR-1537-3p miRNA comprising SEQ ID NO: 31 or isomiRs thereof in a biological sample from a subject who has brain cancer; and

(b) administering interleukin-12 (IL-12); an immunogenic composition of human telomerase reverse transcriptase (hTERT), Wilms Tumor-1 (WT-1), and prostate specific membrane antigen (PSMA); and an anti-programmed cell death receptor 1 (PD-1) antibody to said subject if the subject has an increased expression level of the miR-331-3p miRNA or isomiRs thereof and the miR-1537-3p miRNA or isomiRs thereof relative to a control population of subjects.

2. The method of claim 1 or 2, wherein the presence of the miRNA is determined by RNA sequencing.

3. The method of any one of the preceding claims, wherein the biological sample is a plasma sample.

4. The method of any one of the preceding claims, wherein the biological sample is taken from the subject prior to administration of the IL-12; an immunogenic composition of hTERT, WT-1, and PSMA; and the anti-PD-1 antibody.

5. The method of any one of the preceding claims, wherein administration of IL-12; an immunogenic composition of hTERT, WT-1, and PSMA; and an anti-PD-1 antibody results in survival at 18 months post administration.

6. The method of any one of the preceding claims, wherein the control population of subjects is deceased at 18 months post administration of IL-12; an immunogenic composition of hTERT, WT-1, and PSMA; and an anti-PD-1 antibody.

7. The method of any one of the preceding claims, wherein the subject has an unmethylated O6-methylguanine methyltransferase (MGMT) gene promoter.

8. A method of treating brain cancer in a subject, comprising:

(a) measuring an expression level of at least one mRNA biomarker selected from SYNGR3, OTX1, GABBR2, LHX1, CADM3, MLLT11, MNX1, GRB14, SLC34A2, PHYHIP, WNT10B, SLC17A6, CRLF1, HOXD13, TGFβR3, UBA7, SFRP4, or any combination thereof, in a tumor sample from a subject who has brain cancer; and

(b) administering interleukin-12 (IL-12); an immunogenic composition of human telomerase reverse transcriptase (hTERT), Wilms Tumor-1 (WT-1), and prostate specific membrane antigen (PSMA); and an anti-programmed cell death receptor 1 (PD-1) antibody to said subjectif the expression level of SYNGR3, OTX1, GABBR2, LHX1, CADM3, MLLT11, MNX1, GRB14, SLC34A2, PHYHIP, WNT10B, SLC17A6, CRLF1 and HOXD13 is decreased or if the expression level of TGFβR3, UBA7, SFRP4 is increased relative to a control population of subjects.

9. The method of claim 8, wherein the subject has an unmethylated O6-methylguanine methyltransferase (MGMT) gene promoter.

10. The method of claim 7, wherein the biological sample is a primary tumor sample.

11. The method of any one of the preceding claims, wherein the biological sample is taken from the subject prior to administration of the IL-12; an immunogenic composition of hTERT, WT-1, and PSMA; and the anti-PD-1 antibody.

12. The method of claim 7 or 8, wherein administration of IL-12;an immunogenic composition of hTERT, WT-1, and PSMA; and an anti anti-PD-1 antibody results in survival at 18 months post administration.

13. The method of any one of the preceding claims, wherein the control population of subjects is deceased at 18 months post administration of IL-12; an immunogenic composition of hTERT, WT-1, and PSMA; and an anti-PD-1 antibody.

14. The method of any one of the preceding claims, wherein IL-12 is encoded by a DNA plasmid.

15. The method of any one of the preceding claims, wherein hTERT is encoded by a DNA plasmid, WT-1 is encoded by a DNA plasmid, and/or PSMA is encoded by a DNA plasmid.

16. The method of any one of the preceding claims, wherein hTERT, WT-1, and PSMA are encoded by the same DNA plasmid; two of hTERT, WT-1, and PSMA are encoded by the same DNA plasmid; or wherein hTERT, WT-1, and PSMA are each encoded by a different DNA plasmid.

17. The method of any one of the preceding claims, wherein the anti-PD-1 antibody:

comprises the heavy chain complementarity determining regions (HCDR1, HCDR2 and HCDR3) of a heavy chain variable region (HCVR) comprising the amino acid sequence of SEQ ID NO: 1 and three light chain complementarity determining regions (LCDR1, LCDR2 and LCDR3) of a light chain variable region (LCVR) comprising the amino acid sequence of SEQ ID NO: 2;

comprises three HCDRs (HCDR1, HCDR2 and HCDR3) and three LCDRs (LCDR1, LCDR2 and LCDR3), wherein HCDR1 comprises the amino acid sequence of SEQ ID NO: 3, HCDR2 comprises the amino acid sequence of SEQ ID NO: 4, HCDR3 comprises the amino acid sequence of SEQ ID NO: 5, LCDR1 comprises the amino acid sequence of SEQ ID NO: 6, LCDR2 comprises the amino acid sequence of SEQ ID NO: 7, and LCDR3 comprises the amino acid sequence of SEQ ID NO: 8;

comprises a HCVR with 90% sequence identity to SEQ ID NO: 1;

comprises a LCVR with 90% sequence identity to SEQ ID NO: 2;

comprises a HCVR with 90% sequence identity to SEQ ID NO: 1 and a LCVR with 90% sequence identity to SEQ ID NO: 2;

comprises a HCVR comprising the amino acid sequence of SEQ ID NO: 1 and a LCVR comprising the amino acid sequence of SEQ ID NO: 2;

comprises a heavy chain comprising the amino acid sequence of SEQ ID NO: 9 and a light chain comprising the amino acid sequence of SEQ ID NO: 10;

is an IgG4 antibody; or

is REGN2810 or a biosimilar or bioequivalent thereof.

18. The method of any one of the preceding claims, wherein the anti-PD-1 antibody is administered intravenously or subcutaneously.

19. The method of any one of the preceding claims, wherein 350 mg of the anti-PD-1 antibody is administered every three weeks.

20. The method of any one of the preceding claims, wherein:
the IL12 p35 subunit comprises the amino acid sequence of SEQ ID NO: 23;
the IL12 p40 subunit comprises the amino acid sequence of SEQ ID NO: 25;
the IL12 p35 subunit comprises the amino acid sequence of SEQ ID NO: 23 and the IL12 p40 subunit comprises the amino acid sequence of SEQ ID NO: 25;
the IL12 p35 subunit is encoded by the nucleic acid sequence of SEQ ID NO: 22;
the IL12 p40 subunit is encoded by the nucleic acid sequence of SEQ ID NO: 24; or
the IL12 p35 subunit is encoded by the nucleic acid sequence of SEQ ID NO: 22 and the IL12 p40 subunit is encoded by the nucleic acid sequence of SEQ ID NO: 24.

21. The method of any one of the preceding claims, wherein
the hTERT comprises the amino acid sequence of SEQ ID NO: 20 or is encoded by the nucleic acid sequence of SEQ ID NO: 19;
the WT-1 comprises the amino acid sequence of SEQ ID NO: 26 or is encoded by the nucleic acid sequence of SEQ ID NO: 27; and/or
the PSMA comprises the amino acid sequence of SEQ ID NO: 28 or is encoded by the nucleic acid sequence of SEQ ID NO: 29.

22. The method of claim 20, wherein the method comprises administering to the subject 3 mg of the DNA plasmid encoding hTERT, 3 mg of the DNA plasmid encoding PSMA, 3 mg of the DNA plasmid encoding WT-1, and 1 mg of the plasmid encoding IL-12.

23. The method of any one of the preceding claims, wherein the IL-12 and the immunogenic composition are co-administered by intramuscular injection every three weeks for four doses and then every nine weeks.

24. The method of claim 22, further comprising electroporation following each intramuscular injection.

25. The method of any one of the preceding claims, further comprising administering to the subject one or more doses of radiation therapy.

26. The method of claim 24, wherein each dose of radiation therapy comprises 20-50 Gy.

27. The method of claim 25, wherein the radiation therapy is fractionated radiation therapy.

28. The method of claim 26, wherein the fractionated radiation therapy comprises 2-20 fractions.

29. The method of claim 27, wherein the fractionated radiation therapy comprises 40 Gy in 15 fractions.

30. The method of claim 28, wherein the fractionated radiotherapy is given over 21 consecutive days.

31. The method of any one of the preceding claims, further comprising administering to the subject one or more doses of a chemotherapeutic agent; optionally wherein the chemotherapeutic agent is temozolomide.

32. The method of claim 30, comprising administering 75 mg/m^2 temozolomide to the subject daily for 21 consecutive days with the fractionated radiotherapy.

33. The method of claim 30 or 31, further comprising administering temozolomide maintenance therapy to the subject if the subject has a tumor having a methylated MGMT promoter.

34. The method of any one of the preceding claims, wherein the brain cancer is glioblastoma.

35. The method of claim 33, wherein the brain cancer is MGMT-methylated glioblastoma.

36. The method of claim 34, wherein the brain cancer is MGMT-unmethylated glioblastoma.