CLAIMS

1. Use of a moiety that inhibits MED12 in the manufacture of a medicament for treating cancer, wherein the cancer has a mutant hTERT promoter.

2. The use of claim 1, wherein the cancer has a MED12 mutation, a hTERT promoter mutation, or both.

3. The use of claims 1 or 2, wherein the cancer is selected from the group consisting of T-cell acute lymphoblastic leukemia, chronic lymphocytic leukemia, colorectal cancer, gastric cancer, breast cancer, non-anaplastic thyroid cancer, central nervous system cancer, and skin cancer.

4. The use of claim 3, wherein the central nervous system cancer is glioblastoma and wherein the skin cancer is melanoma.

5. The use of any one of claims 1 to 4, wherein the moiety that inhibits MED12 is an siRNA.

6. The use of claim 5, wherein the siRNA is formed from a Dicer-substrate small interfering RNA (dsiRNA), wherein the dsiRNA comprises the sequence of:
   (i) SEQ ID NOs 1 and 2; or
   (ii) SEQ ID NOs 3 and 4.

7. A pharmaceutical composition comprising (a) a therapeutic amount of a moiety that inhibits MED12 and (b) one or more pharmaceutically acceptable carriers and/or diluents, wherein the moiety that inhibits MED12 is an siRNA formed from a Dicer-substrate small interfering RNA (dsiRNA).

8. The pharmaceutical composition of claim 7, wherein the the dsiRNA comprises the sequence of:
   (i) SEQ ID NOs 1 and 2; or
   (ii) SEQ ID NOs 3 and 4.

9. An ex vivo method for inhibiting telomerase activity in a cell comprising a mutant hTERT promoter, the method comprising contacting the cell with an inhibitor of MED12.

10. The method of claim 9, wherein the mutant hTERT comprises a C250T mutation or a C228T mutation.

11. The method of claims 9 or 10, wherein the inhibitor of MED12 inhibits telomerase activity via transcriptional inhibition of MED12, translational inhibition of MED12 or post-translational inhibition of MED12.

12. The method of any one of claims 9 to 11, wherein the inhibitor of MED12 is a small interfering RNA (siRNA) that inhibits expression of MED12 mRNA.

13. The method of claim 12, wherein the siRNA is formed from a Dicer-substrate small interfering RNA (dsiRNA), wherein the dsiRNA comprises the sequence of:
    (i) SEQ ID NOs 1 and 2; or
    (ii) SEQ ID NOs 3 and 4.