CLAIMS

What is claimed is:

1. A method of treating cancer in a subject comprising administering to the subject a fusion protein comprising a sequence at least 80% identical to SEQ ID NO: 1, wherein the subject is administered at least a first dose of the fusion protein and a second dose of the fusion protein on non-consecutive days.

2. The method of claim 1, wherein the fusion protein is administered at doses of about 1 µg/kg to about 60 µg/kg.

3. The method of claim 1 or 2, wherein the first dose and the second dose are the same.

4. The method of any one of claims 1-3, wherein the subject is administered the first dose of the fusion protein on day 1 and the second dose of the fusion protein on any one of day 3, day 4, day 5, day 6, day 7, day 8, day 9, day 10, day 11, day 12, day 13, day 14, day 15, day 16, day 17, day 18, day 19, day 20, or day 21.

5. The method of any one of claims 1-3, wherein the subject is administered the first dose of the fusion protein on day 1 and the second dose of the fusion protein on day 4.

6. The method of any one of claims 1-3, wherein the subject is administered the first dose of the fusion protein on day 1 and the second dose of the fusion protein on day 8.

7. The method of any one of claims 1-3, wherein the subject is administered a first dose of the fusion protein of about 10 µg/kg to about 30 µg/kg on day 1, and a second dose of the fusion protein of about 10 µg/kg to about 30 µg/kg on any one of day 3, day 4, day 5, day 6, day 7, day 8, day 9, day 10, day 11, day 12, day 13, day 14, day 15, day 16, day 17, day 18, day 19, day 20, or day 21.

8. A method of treating cancer in a subject comprising administering to the subject a fusion protein comprising a sequence at least 80% identical to SEQ ID NO: 1, wherein the subject is administered at least a first dose of the fusion protein, wherein the subject is not administered a dose of the fusion protein at least one day prior to the first dose and the subject is not administered a dose of the fusion protein one day after the first dose.

9. A method of treating cancer in a subject comprising administering to the subject a fusion protein comprising a sequence at least 80% identical to SEQ ID NO: 1, wherein the subject is administered a single dose of the fusion protein once every week (Q1W), once every 2 weeks (Q2W), once every 3 weeks (Q3W), or once every 4 weeks (Q4W).

10. The method of claim 8 or 9, wherein the fusion protein is administered at a dose of about 10 µg/kg to about 60 µg/kg.

11. The method of any one of claims 8-10, wherein the fusion protein is administered at a dose of about 10 µg/kg, about 15 µg/kg, about 20 µg/kg, about 25 µg/kg, about 30 µg/kg, about 35 µg/kg, about 40 µg/kg, about 45 µg/kg, about 50 µg/kg, about 55 µg/kg, or about 60 µg/kg.

12. The method of any one of claims 1-11, wherein each dose is administered by intravenous injection or infusion.

13. The method of any one of claims 1-11, wherein each dose is administered by intravenous injection or infusion over a period of about 30 minutes, about 60 minutes, or about 90 minutes.

14. The method of any one of claims 1-13, further comprising administering to the subject a therapeutically effective amount of a therapeutic agent.

15. The method of claim 14, where the therapeutic agent is a PARP inhibitor, an immune checkpoint inhibitor a cytotoxic agent, or a chemotherapeutic agent.

16. The method of claim 15, wherein the therapeutic agent is an immune checkpoint inhibitor.

17. The method of claim 15 or 16, wherein the immune checkpoint inhibitor is pembrolizumab.

18. The method of claim 17, wherein the pembrolizumab is administered in an amount of 200 mg by intravenous injection or infusion.

19. The method of any one of claims 1-18, wherein the cancer is a solid tumor.

20. The method of claim 19, wherein the solid tumor is a carcinoma, sarcoma, or lymphoma.

21. The method of claim 19, wherein the cancer is renal cell carcinoma (RCC), melanoma, mucosal melanoma, breast cancer, pancreatic cancer, prostate cancer, non-small cell lung cancer, liver cancer, colon and rectal cancer, bladder cancer, cervical cancer, ovarian cancer, thyroid cancer, esophageal cancer, oral cancer, mesothelioma, non-melanoma skin cancer, or gastric cancer.

22. The method of any one of claims 1-18, wherein the cancer being treated is a blood cancer.

23. The method of claim 22, wherein the blood cancer is leukemia, non-Hodgkin lymphoma, Hodgkin lymphoma, or multiple myeloma.

24. A pharmaceutical composition comprising a fusion protein comprising a sequence at least 80% to SEQ ID NO: 1, wherein the pharmaceutical composition comprises a unit dosage of about 1 µg/kg to about 60 µg/kg.