

CLAIMS

1. Use of an antibody that neutralizes the inhibitory activity of human NKG2A in the preparation of a medicament for treating cancer in a human individual who experiences progressive disease during or following treatment with an antibody that neutralizes the inhibitory activity of human PD-1, in which the antibody that neutralizes the inhibitory activity of human NKG2A binds NKG2A, and in which the antibody that neutralizes the inhibitory activity of human PD-1 binds a PD-1 or PD-L1 polypeptide.
2. Use according to Claim 1, in which the antibody that neutralizes the inhibitory activity of human PD-1 binds a PD-L1 polypeptide
3. Use according to Claim 1 or 2, in which the individual has an elevated number of NKG2A expressing NK and/or CD8 T cells.
4. Use according to Claim 1, 2 or 3, in which the antibody that neutralizes the inhibitory activity of human NKG2A is to be administered in combination with an antibody that neutralizes the inhibitory activity of PD-1.
5. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of human NKG2A and the antibody that neutralizes the inhibitory activity of PD-1 are formulated for separate administration and are to be administered concurrently or sequentially.
6. Use according to any preceding claim, in which the individual is determined to have an elevated number of NKG2A-expressing NK and/or CD8 T cells following at least one administration of, optionally at least one treatment cycle with, an antibody that neutralizes the inhibitory activity of PD-1.
7. Use according to any preceding claim, in which the cancer is a solid tumor.
8. Use according to any preceding claim, in which the cancer is selected from the group consisting of lung cancer, renal cell carcinoma (RCC), melanoma, colorectal cancer, and ovarian cancer.
9. Use according to any preceding claim, in which the cancer is head and neck squamous cell carcinoma.

10. Use according to any of Claims 1 to 8, in which the cancer is non-small cell lung cancer.
11. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of NKG2A comprises the CDR1, CDR2 and CDR3 domains of a heavy chain having the sequence set forth in any one of SEQ ID NOS: 4-8, and the CDR1, CDR2
5 and CDR3 domains of a light chain having the sequence set forth in SEQ ID NO: 9.
12. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of NKG2A comprises the CDR1, CDR2 and CDR3 domains of a heavy chain having the sequence set forth in SEQ ID NO: 5, and the CDR1, CDR2 and CDR3 domains of a light chain having the sequence set forth in SEQ ID NO: 9.
- 10 13. Use according to any preceding claim, in which the antibody is an IgG4 antibody, an antibody fragment, an antibody lacking an Fc domain or an antibody comprising an Fc domain that is modified to reduce binding between the Fc domain and an Fcγ receptor.
14. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of NKG2A comprises the heavy chain consisting of the sequence set forth
15 in SEQ ID NO: 5, and the light chain consisting of the sequence set forth in SEQ ID NO: 9.
15. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of PD-1 is selected from the group consisting of pembrolizumab, nivolumab, AMP-514, MEDI-4736, CT-011, and MPDL3280A.
16. Use according to any preceding claim, in which the antibody that neutralizes the
20 inhibitory activity of PD-1 is MEDI-4736.
17. Use according to any preceding claim, in which the antibody that neutralizes the inhibitory activity of NKG2A is to be administered to the individual in an amount effective to neutralize the inhibitory activity of NKG2A on NK and/or CD8 T cells.
18. An *in vitro* method for identifying an individual having a cancer who is a poor
25 responder to treatment with an antibody that neutralizes the inhibitory activity of human PD-1, the method comprising:
 - (a) determining levels of NKG2A expression on NK and/or CD8 T cells and/or numbers of NKG2A-expressing NK and/or CD8 T cells in an individual who has been treated with an antibody that neutralizes the inhibitory activity of human PD-1; and

(b) upon a determination that the individual has increased levels of NKG2A expression on NK and/or CD8 T cells and/or increased numbers of NKG2A-expressing NK and/or CD8 T cells, identifying the individual as a poor responder to treatment with an antibody that neutralizes the inhibitory activity of human PD-1.

5 19. Use of an antibody that neutralizes the inhibitory activity of NKG2A in the preparation of a medicament for the treatment or prevention of a cancer in an individual who is being treated with an antibody that neutralizes the inhibitory activity of PD-1, in which:

(a) levels of NKG2A expression on NK and/or CD8 T cells and/or numbers of NKG2A-expressing NK and/or CD8 T cells in the individual are determined; and

10 (b) upon a determination that the individual has increased levels of NKG2A expression on NK and/or CD8 T cells and/or increased numbers of NKG2A-expressing NK and/or CD8 T cells, an antibody that neutralizes the inhibitory activity of a human NKG2A polypeptide is to be administered to the individual.