

We claim:

1. Use of an immune checkpoint inhibitory antibody in the manufacture of a medicament for treating a cancer patient, wherein the cancer patient has a microsatellite instable cancer (MSI).
2. The use of claim 1 wherein the cancer is selected from the group consisting of: colon, gastric, endometrial, cholangiocarcinoma, pancreatic, and prostate cancers.
3. The use of claim 1 wherein the antibody is an anti-PD-1 antibody.
4. The use of claim 1 wherein the antibody is an anti-IDO antibody.
5. The use of claim 1 wherein the antibody is an anti-CTLA-4 antibody.
6. The use of claim 1 wherein the antibody is an anti-PD-L1 antibody.
7. The use of claim 1 wherein the antibody is an anti-LAG-3 antibody.
8. The use of claim 1 wherein a sample from the MSI cancer patient is tested to evaluate stability of one or more microsatellite markers prior to administration of the antibody.
9. The use of claim 1 wherein the antibody is a humanized monoclonal antibody.
10. The use of claim 1 wherein the antibody is MK-3475.
11. The use of claim 1 wherein the antibody is an IgG4 antibody.
12. The use of claim 8 wherein a plurality of microsatellite markers is tested.
13. The use of claim 8 wherein the one or more microsatellite markers is selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.
14. The use of claim 12 wherein the plurality of microsatellite markers comprises BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.
15. Use of an anti-PD1 antibody in the manufacture of a medicament for treating a cancer patient, wherein the use comprises
testing a sample from a cancer patient and determining instability of one or more microsatellite markers selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D;
wherein the cancer is selected from the group consisting of: colon, gastric, endometrial, cholangiocarcinoma, pancreatic, and prostate cancers.

16. A method of categorizing a tumor of a human, comprising:
 - testing a sample from the human to evaluate stability of one or more microsatellite markers;
 - determining microsatellite instability in the sample;
 - identifying the tumor as a good candidate for treatment with an immune checkpoint inhibitory antibody.
17. The method of claim 16 further comprising the step of:
 - prescribing an immune checkpoint inhibitory antibody for the human.
18. The method of claim 16 wherein the one or more microsatellite markers is selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.
19. The method of claim 16 wherein the one or more microsatellite markers is selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.
20. A method of categorizing a tumor of a human, comprising:
 - testing a sample from the human to evaluate stability of one or more microsatellite markers;
 - determining microsatellite stability in the sample;
 - identifying the tumor as a bad candidate for treatment with an immune checkpoint inhibitory antibody.
21. The method of claim 20 wherein the human is being treated with an immune checkpoint inhibitory antibody, and further comprising the step of ceasing treatment with an immune checkpoint inhibitory antibody.
22. The method of claim 20 wherein the one or more microsatellite markers is selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.
23. The method of claim 20 wherein the one or more microsatellite markers is selected from the group consisting of BAT-25, BAT-26, MON0-27, NR-21, NR-24, Penta C, and Penta D.

24. Use of an immune checkpoint inhibitory antibody in the manufacture of a medicament for treating a cancer patient, wherein the cancer patient has a mutational burden of at least 100 somatic mutations per tumor.
25. The use of claim 24 wherein the antibody is an anti-PD-1 antibody.
26. The use of claim 24 wherein the antibody is an anti-IDO antibody.
27. The use of claim 24 wherein the antibody is an anti-CTLA-4 antibody.
28. The use of claim 24 wherein the antibody is an anti-PD-L1 antibody.
29. The use of claim 24 wherein the antibody is an anti-LAG-3 antibody.
30. The use of claim 24 further comprising determining a high mutational burden in the tumor prior to administration of the antibody.