We claim:

1. Use of an ErbB3 inhibitor for the manufacture of a medicament for the treatment of triple negative breast cancer.

2. A method of suppressing growth of a triple negative breast cancer cell, the method comprising contacting the cell with an effective amount of an ErbB3 inhibitor.

3. A method of suppressing growth of a triple negative breast cancer tumor in a patient, the method comprising administering to the patient an effective amount of an ErbB3 inhibitor.

4. A method of treating a patient for a triple negative breast cancer tumor, the method comprising administering to the patient an effective amount of an ErbB3 inhibitor.

5. A method of treating a breast cancer tumor in a patient, the method comprising
selecting a patient with a triple negative breast cancer tumor; and
administering to the patient an effective amount of an ErbB3 inhibitor.

6. The method of any one of claims 1-5, wherein the ErbB3 inhibitor is an anti-ErbB3 antibody.

7. The method of claim 6, wherein the anti-ErbB3 antibody is MM-121.

8. The method of claim 6, wherein the anti-ErbB3 antibody comprises an antibody comprising, in amino terminal to carboxy terminal order, $V_H$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 3-5, respectively, and, in amino terminal to carboxy terminal order, $V_L$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 6-8, respectively.

9. The method of claim 6, wherein the anti-ErbB3 antibody comprises Ab #3, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 9 and 10, respectively.

10. The method of claim 6, wherein the anti-ErbB3 antibody comprises Ab #14, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 17 and 18, respectively.

11. The method of claim 6, wherein the anti-ErbB3 antibody comprises Ab #17, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 25 and 26, respectively.

12. The method of claim 6, wherein the anti-ErbB3 antibody comprises Ab #19, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 33 and 34, respectively.

13. The method of claim 6, wherein the anti-ErbB3 antibody is selected from the group consisting of mAb 1B4C3, mAb 2D1D12 and humanized mAb 8B8.

14. The method of any one of claims 1-5, wherein the triple negative breast cancer tumor is histopathologically characterized as having a basal-like phenotype.

15. The method of any one of claims 1-5, wherein the triple negative breast cancer tumor is histopathologically characterized as having a phenotype other than basal-like.

16. The method of any one of claims 3-15, which further comprises administering to the patient an effective amount of at least one additional anti-cancer agent that is not an ErbB3 inhibitor.

17. The method of claim 16, wherein the at least one additional anti-cancer agent comprises at least one chemotherapeutic drug.

18. The method of claim 17, wherein the at least one additional anti-cancer agent is selected from the group consisting of platinum-based chemotherapy drugs, taxanes, tyrosine kinase inhibitors, anti-EGFR antibodies, anti-ErbB2 antibodies, and combinations thereof.

19. The method of claim 18, wherein the at least one chemotherapeutic drug is paclitaxel.

20. The method of claim 19, wherein the ErbB3 inhibitor is an anti-ErbB3 antibody comprising $V_H$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 3, 4 and 5, respectively, and $V_L$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 6, 7 and 8, respectively.

21. The method of claim 19, wherein the ErbB3 inhibitor is MM-121.

22. The method of claim 16, wherein the at least one additional anti-cancer agent comprises an EGFR inhibitor.

23. The method of claim 22, wherein the EGFR inhibitor comprises an anti-EGFR antibody.

24. The method of claim 23, wherein the anti-EGFR antibody comprises cetuximab.

25. The method of claim 23, wherein the anti-EGFR antibody is selected from the group consisting of matuzumab, panitumumab, nimotuzumab and mAb 806.

26. The method of claim 22, wherein the EGFR inhibitor is a small molecule inhibitor of EGFR signaling.

27. The method of claim 26, wherein the small molecule inhibitor of EGFR signaling is selected from the group consisting of gefitinib, lapatinib, canertinib, pelitinib, erlotinib HCL, PKI-166, PD158780, and AG 1478.

28. The method of claim 16, wherein the at least one additional anti-cancer agent comprises a VEGF inhibitor.

29. The method of claim 28, wherein the VEGF inhibitor comprises an anti-VEGF antibody.

30. The method of claim 29, wherein the anti-VEGF antibody is bevacizumab.

31. The method of any one of claims 1-5, wherein the triple negative breast cancer tumor is a tumor in which the tumor cells score negative for estrogen receptor (ER) and progesterone receptor and yield a test result of 0 or 1+ using a semi-quantitative immunohistochemical assay using a polyclonal anti-HER2 primary antibody.

32. The method of any one of claims 1-5, wherein the triple negative breast cancer tumor is a tumor in which the tumor cells score negative for estrogen receptor (ER) and progesterone receptor and yield a test result of 2+ using a semi-quantitative immunohistochemical assay using a polyclonal anti-HER2 primary antibody.

33. Then method of claim 32, wherein the tumor cells are FISH negative for HER2 gene amplification.

34. Use of an ErbB3 inhibitor for the manufacture of a medicament for the treatment of basal-like breast cancer.

35. A method of suppressing growth of a basal-like breast cancer cell, the method comprising contacting the cell with an effective amount of an ErbB3 inhibitor.

36. A method of suppressing growth of a basal-like breast cancer tumor in a patient, the method comprising administering to the patient an effective amount of an ErbB3 inhibitor.

37. A method of treating a patient for a basal-like breast cancer tumor, the method comprising administering to the patient an effective amount of an ErbB3 inhibitor.

38. A method of treating a breast cancer tumor in a patient, the method comprising:
selecting a patient with a basal-like breast cancer tumor; and
administering to the patient an effective amount of an ErbB3 inhibitor.

39. The method of any one of claims 34-38, wherein the ErbB3 inhibitor is an anti-ErbB3 antibody.

40. The method of claim 39, wherein the anti-ErbB3 antibody is MM-121.

41. The method of claim 39, wherein the anti-ErbB3 antibody comprises an antibody comprising $V_H$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 3-5, respectively, and $V_L$ CDR1, 2 and 3 sequences as shown in SEQ ID NOs: 6-8, respectively.

42. The method of claim 39, wherein the anti-ErbB3 antibody comprises Ab #3, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 9 and 10, respectively.

43. The method of claim 39, wherein the anti-ErbB3 antibody comprises Ab #14, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 17 and 18, respectively.

44. The method of claim 39, wherein the anti-ErbB3 antibody comprises Ab #17, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 25 and 26, respectively.

45. The method of claim 39, wherein the anti-ErbB3 antibody comprises Ab #19, comprising $V_H$ and $V_L$ sequences as shown in SEQ ID NOs: 33 and 34, respectively.

46. The method of claim 39, wherein the anti-ErbB3 antibody is selected from the group consisting of mAb 1B4C3, mAb 2D1D12, AMG-888 and humanized mAb 8B8.

47. The method of any one of claims 35-40, which further comprises administering to the patient an effective amount of at least one additional anti-cancer agent that is not an ErbB3 inhibitor.

48. The method of claim 47, wherein the at least one additional anti-cancer agent is paclitaxel.

49. Use of an ErbB3 inhibitor for the manufacture of a medicament for the treatment of basal-like breast cancer or triple negative breast cancer in conjunction with the treatment of basal-like breast cancer or triple negative breast cancer with at least one additional anti-cancer agent that is not an ErbB3 inhibitor.

50. The method of claim 49, wherein the at least one additional anti-cancer agent is paclitaxel.

51. The method of claim 18 or claim 44, wherein the additional anti-cancer agent is an anti-ErbB2 antibody that is trastuzumab or pertuzumab.

52. The method of claim 18 or claim 47, wherein the at least one additional anti-cancer agent is lapatinib.

53. The method of claim 31 or claim 32, wherein the semi-quantitative immunohistochemical assay is the assay comprised by a HercepTest® Kit.

CLAIMS

1. Use of an ErbB3 inhibitor for the manufacture of a medicament for the treatment of triple negative breast cancer.

2. The use of claim 1, wherein the ErbB3 inhibitor comprises an anti-ErbB3 antibody.

3. The use of claim 2, wherein the anti-ErbB3 antibody comprises, in amino terminal to carboxy terminal order, a $V_H$ CDR1 sequence as shown in SEQ ID NO:3, a $V_H$ CDR2 sequence as shown in SEQ ID NO:4 and a $V_H$ CDR3 sequence as shown in SEQ ID NO:5, and, in amino terminal to carboxy terminal order, a $V_L$ CDR1 sequence as shown in SEQ ID NO:6, a $V_L$ CDR2 sequence as shown in SEQ ID NO:7 and a $V_L$ CDR3 sequence as shown in SEQ ID NO:8.

4. The use claim 2, wherein the anti-ErbB3 antibody is selected from the group consisting of:
(a) an antibody comprising a $V_H$ sequence as shown in SEQ ID NO:1 and a $V_L$ sequence as shown in SEQ ID NO:2;
(b) an antibody comprising a $V_H$ sequence as shown in SEQ ID NO:9 and a $V_L$ sequence as shown in SEQ ID NO:10;
(c) an antibody comprising a $V_H$ sequence as shown in SEQ ID NO:17 and a $V_L$ sequence as shown in SEQ ID NO:18; and
(d) an antibody comprising a $V_H$ sequence as shown in SEQ ID NO:25 and a $V_L$ sequence as shown in SEQ ID NO:26.

5. The use of any one of claims 1 to 4, wherein the triple negative breast cancer tumor is histopathologically characterized as having a basal-like phenotype.

6. The use of any one of claims 1 to 4, wherein the triple negative breast cancer tumor is histopathologically characterized as having a phenotype other than basal-like.

7. The use of any one of claims 1 to 4, wherein the medicament is for use in administering to a patient in combination with an effective amount of at least one additional anti-cancer agent.

8. The use of claim 7, wherein the at least one additional anti-cancer agent is selected from the group consisting of platinum-based chemotherapy drugs, taxanes, tyrosine kinase inhibitors, anti-EGFR antibodies, anti-ErbB2 antibodies, and combinations thereof.

9. The use of claim 8, wherein the at least one additional anti-cancer agent is paclitaxel.

10. The use of claim 7, wherein the at least one additional anti-cancer agent comprises an EGFR inhibitor.

11. The use of claim 10, wherein the EGFR inhibitor comprises an anti-EGFR antibody.

12. The use of claim 11, wherein the anti-EGFR antibody is selected from the group consisting of cetuximab, matuzumab, panitumumab, nimotuzumab and mAb 806.

13. The use of claim 10, wherein the EGFR inhibitor is a small molecule inhibitor of EGFR signaling selected from the group consisting of gefitinib, lapatinib, canertinib, pelitinib, erlotinib HCL, PKI-166, PD158780, and AG 1478.

14. The use or method of claim 7, wherein the at least one additional anti-cancer agent comprises a VEGF inhibitor.

15. The use or method of claim 14, wherein the VEGF inhibitor comprises bevacizumab.

16. The use of any one of claims 1 to 4, wherein the triple negative breast cancer tumor is a tumor in which the tumor cells score negative for estrogen receptor (ER) and progesterone receptor and yield a test result for HER2 of 0, 1+, or 2+ using a semi-quantitative immunohistochemical assay using a polyclonal anti-HER2 primary antibody.

17. The use or method of claim 16, wherein the tumor cells are FISH negative for HER2 gene amplification.

18. Use of an ErbB3 inhibitor for the manufacture of a medicament for the treatment of basal-like breast cancer.

19. The use of claim 18, wherein the ErbB3 inhibitor comprises an anti-ErbB3 antibody that comprises, in amino terminal to carboxy terminal order, a $V_H$ CDR1 sequence as shown in SEQ ID NO:3, a $V_H$ CDR2 sequence as shown in SEQ ID NO:4 and a $V_H$ CDR3 sequence as shown in SEQ ID NO:5, and, in amino terminal to carboxy terminal order, a $V_L$ CDR1 sequence as shown in SEQ ID NO:6, a $V_L$ CDR2 sequence as shown in SEQ ID NO:7 and a $V_L$ CDR3 sequence as shown in SEQ ID NO:8, or wherein the anti-ErbB3 antibody comprises an antibody comprising a $V_H$ sequence as shown in SEQ ID NO:1 and a $V_L$ sequence as shown in SEQ ID NO:2.

20. The use claim 19, wherein the medicament is for use in administering to a patient in combination with an effective amount of at least one additional anti-cancer agent.

21. The use of claim 20, wherein the at least one additional anti-cancer agent is paclitaxel.

22. Use of an ErbB3 inhibitor of claim 1 or 18, wherein the medicament is for use in administering to a patient in combination with at least one additional anti-cancer agent that is not an ErbB3 inhibitor.

23. The use of claim 22, wherein the at least one additional anti-cancer agent is selected from the group consisting of paclitaxel, trastuzumab, pertuzumab, cetuximab, matuzumab, panitumumab, nimotuzumab, mAb 806, gefitinib, lapatinib, canertinib, pelitinib, erlotinib, HCL, PK1-166, PD158780, and AG 1478.