WHAT IS CLAIMED IS:

1. A method for treating a human patient having an FOLR1-expressing cancer comprising administering to the patient an immunoconjugate which binds to FOLR1 polypeptide, wherein the immunoconjugate is administered at a dose of about 3.0 to about 7 milligrams (mg) per kilogram (kg) of body weight of the patient, wherein the kilograms of body weight of the patient are adjusted to adjusted ideal body weight (AIBW).

2. The method of claim 1, wherein the administration produces a Cmax of about 90-160 μg/mL.

3. The method of claim 2, wherein the administration produces a Cmax of about 90-150 μg/mL.

4. The method of any one of claims 1-3, wherein the administration produces an area-under-the-curve $(AUC)_{0-24}$ of no more than 2700 hr•μg/mL.

5. The method of any one of claims 1-4, wherein the immunoconjugate is administered at a dose of about 5.0 mg/kg.

6. The method of any one of claims 1-4, wherein the immunoconjugate is administered at a dose of about 6.0 mg/kg.

7. The method of any one of claims 1-4, wherein the immunoconjugate is administered at a dose of about 6.5 mg/kg.

8. The method of any one of claims 1-7, wherein the immunoconjugate is administered once every three weeks.

9. The method of any one of claims 1-4, wherein the immunoconjugate is administered once every week.

10. A method for treating a human patient having an FOLR1-expressing cancer comprising administering to the patient an immunoconjugate which binds to FOLR1 polypeptide, wherein the immunoconjugate is administered at a dose of about 3.0 to about 7 milligrams (mg) per kilogram (kg) of body weight of the patient, and wherein the administration produces a Cmax of about 110-160 μg/mL.

11. The method of claim 10, wherein the administration produces a Cmax of about 110-150 μg/mL.

12. A method for treating a human patient having an FOLR1-expressing cancer comprising administering to the patient an immunoconjugate which binds to FOLR1 polypeptide, wherein the

immunoconjugate is administered at a dose of about 3.0 to about 7 milligrams (mg) per kilogram (/kg) of body weight of the patient, and wherein the administration produces an $AUC_{0-24}$ of no more than 2700 hr•μg/mL.

13. The method of any one of claims 1-12, wherein immunoconjugate comprises an antibody or antigen-binding fragment thereof that comprises the CDRs of SEQ ID NOs: 6-9, 11, and 12.

14. The method of claim 13, wherein the antibody is huMov19.

15. The method of any one of claims 1-14, wherein the immunoconjugate comprises a maytansinoid.

16. The method of claim 15, wherein the maytansinoid is DM4.

17. The method of any one of claims 1-16, wherein the immunoconjugate comprises the linker sulfo-SPDB.

18. The method of any one of claims 1-17, wherein the immunoconjugate is IMGN853.

19. The method of any one of claims 1-18, wherein the immunoconjugate is administered intravenously.

20. The method of any one of claims 1-19, wherein said cancer is selected from the group consisting of ovarian, brain, breast, uterine, endometrial, pancreatic, renal, and lung cancer.

21. The method of claim 20, wherein the lung cancer is non small cell lung cancer.

22. The method of claim 21, wherein the non small cell lung cancer is adenocarcinoma.

23. The method of claim 20, wherein the ovarian cancer is epithelial ovarian cancer.

24. The method of claim 23, wherein the ovarian cancer is platinum resistant, relapsed, or refractory.

25. The method of claim 20, wherein the cancer is endometrial cancer.

26. The method of any one of claims 1-25, wherein a sample obtained from the patient exhibits FOLR1 expression as measured by immunohistochemistry (IHC).

27. The method of claim 26, wherein the sample has a staining intensity of at least 2 hetero.

28. The method of claim 26, wherein the sample has a staining intensity of at least 2 homo.

29. The method of claim 26, wherein the sample has a staining intensity of at least 3 hetero.

30. The method of claim 26, wherein the sample has a staining intensity of at least 3 homo.

31. The method of any one of claims 1-30, further comprising administering a steroid to the patient.

32. The method of claim 31, wherein the steroid is dexamethasone.

33. The method of any one of claims 1-32, wherein the administration results in a decrease in tumor size.

34. The method of any one of claims 1-20, 23, 24, and 26-33, wherein the cancer is ovarian cancer and wherein the administration results in a decrease in CA125.

35. The method of any one of claims 1-34, wherein the administration results in a decrease in toxicity.

36. The method of claim 35, wherein the toxicity is ocular toxicity.

37. The method of any one of claims 1-36, further comprising administering a second compound having anti-cancer properties.

38. The method of any one of claim 1-3, 5-11, and 13-37 wherein the administration produced an $AUC_{0-24}$ of no more than 2785 hr•μg/mL.

39. The method of any one of claim 1-3, 5-11, and 13-37, wherein the administration produced an $AUC_{0-24}$ of no more than 2741 hr•μg/mL.

40. A method for treating a human patient having an FOLR1-expressing cancer comprising administering to the patient an effective dose of an immunoconjugate which binds to FOLR1 polypeptide, wherein the administration produces an $AUC_{0-24}$ of no more than 2741 hr•μg/mL.

41. The method of claim 40, wherein the administration produces a Cmax of no more than 160 μg/mL.

42. The method of claim 41, wherein the administration produces a Cmax of no more than 150 μg/mL.

43. The method of any one of claims 40-42, wherein immunoconjugate comprises an antibody or antigen-binding fragment thereof that comprises the CDRs of SEQ ID NOs: 6-9, 11, and 12.

44. The method of claim 43, wherein the antibody is huMov19.

45. The method of any one of claims 40-44, wherein the immunoconjugate comprises a maytansinoid.

46. The method of claim 45, wherein the maytansinoid is DM4.

47. The method of any one of claims 40-46, wherein the immunoconjugate comprises the linker sulfo-SPDB.

48. The method of any one of claims 40-47, wherein the immunoconjugate is IMGN853.

49. The method of any one of claims 40-48, wherein the immunoconjugate is administered intravenously.

50. The method of any one of claims 40-49, wherein said cancer is selected from the group consisting of ovarian, brain, breast, uterine, endometrial, pancreatic, renal, and lung cancer.

51. The method of claim 50, wherein the lung cancer is non small cell lung cancer.

52. The method of claim 51, wherein the non small cell lung cancer is adenocarcinoma.

53. The method of claim 50, wherein the ovarian cancer is epithelial ovarian cancer.

54. The method of claim 53, wherein the ovarian cancer is platinum resistant, relapsed, or refractory.

55. The method of claim 50, wherein the cancer is endometrial cancer.

56. The method of any one of claims 40-55, wherein a sample obtained from the patient exhibits FOLR1 expression as measured by immunohistochemistry (IHC).

57. The method of claim 56, wherein the sample has a staining intensity of at least 2 hetero.

58. The method of claim 56, wherein the sample has a staining intensity of at least 2 homo.

59. The method of claim 56, wherein the sample has a staining intensity of at least 3 hetero.

60. The method of claim 56, wherein the sample has a staining intensity of at least 3 homo.

61. The method of any one of claims 40-60, further comprising administering a steroid to the patient.

62. The method of claim 61, wherein the steroid is dexamethasone.

63. The method of any one of claims 40-62, wherein the administration results in a decrease in tumor size.

64. The method of any one of claims 40-50, 53, 54, and 56-63, wherein the cancer is ovarian cancer and wherein the administration results in a decrease in CA125.

65. The method of any one of claims 40-64, wherein the administration results in a decrease in toxicity.

66. The method of claim 65, wherein the toxicity is ocular toxicity.

67. The method of any one of claims 40-66, further comprising administering a second compound having anti-cancer properties.

68. A method for treating a human patient having a FOLR1-expressing cancer comprising administering to the patient an immunoconjugate which binds to FOLR1 polypeptide, wherein the immunoconjugate is administered once a week for three weeks on a four-week schedule.

69. The method of claim 68, wherein the immunoconjugate is administered on days 1, 8, and 15 of a four-week schedule.

70. The method of claim 68 or 69, wherein the administration produces a Cmax of about 90-160 μg/mL.

71. The method of claim 70, wherein the administration produces a Cmax of about 90-150 μg/mL.

72. The method of claim 68 or 69, wherein the administration produces a Cmax of about 110-160 μg/mL.

73. The method of claim 72, wherein the administration produces a Cmax of about 110-150 μg/mL.

74. The method of any one of claims 68-73, wherein the administration produces an $AUC_{0-24}$ of no more than 2700 hr•μg/mL.

75. The method of any one of claims 68-74, wherein the immunoconjugate is administered at a dose of about 1.5 to about 6 mg/kg.

76. The method of claim 75, wherein the immunoconjugate is administered at a dose of about 1.5, 2.0, 2.5, 3, 3.3, 4.0, 4.1, 4.2, 5.0, 5.5, or 6.0 mg/kg.

77. The method of any one of claims 68-76, wherein the immunoconjugate comprises an antibody or antigen-binding fragment thereof that comprises the CDRs of SEQ ID NOs: 6-9, 11, and 12.

78. The method of claim 77, wherein the antibody is huMov19.

79. The method of any one of claims 68-78, wherein the immunoconjugate comprises a maytansinoid.

80. The method of claim 79, wherein the maytansinoid is DM4.

81. The method of any one of claims 68-80, wherein the immunoconjugate comprises the linker sulfo-SPDB.

82. The method of any one of claims 68-81, wherein the immunoconjugate is IMGN853.

83. The method of any one of claims 68-82, wherein the immunoconjugate is administered intravenously.

84. The method of any one of claims 68-83, wherein said cancer is selected from the group consisting of ovarian, brain, breast, uterine, endometrial, pancreatic, renal, and lung cancer.

85. The method of any one of claims 68-84, further comprising administering a steroid to the patient.

86. The method of claim 85, wherein the steroid is dexamethasone.

87. The method of any one of claims 68-86, wherein the administration results in a decrease in tumor size.

88. The method of any one of claims 68-87, wherein the cancer is ovarian cancer and wherein the administration results in a decrease in CA125.

89. The method of any one of claims 68-88, wherein the administration results in a decrease in toxicity.

90. The method of claim 89, wherein the toxicity is ocular toxicity.

91. The method of any one of claims 68-90, further comprising administering a second compound having anti-cancer properties.

92. A method for treating a human patient having an FOLR1-expressing cancer comprising administering to the patient an immunoconjugate which binds to FOLR1 polypeptide, wherein the immunoconjugate is administered at a dose of about 1 to about 7 milligrams (mg) per kilogram (kg) of body weight of the patient, wherein the kilograms of body weight of the patient are adjusted to adjusted ideal body weight and wherein the immunoconjugate is administered once a week for three weeks on a four-week schedule.

93. The method of claim 92, wherein the immunoconjugate is administered on days 1, 8, and 15 of the four-week schedule.

94. The method of claim 92 or 93, wherein the immunoconjugate is administered at a dose of about 1.1 mg/kg.

95. The method of claim 92 or 93, wherein the immunoconjugate is administered at a dose of about 1.8 mg/kg.

96. The method of claim 92 or 93, wherein the immunoconjugate is administered at a dose of about 2.5 mg/kg.

97. The method of claim 92 or 93, wherein the immunoconjugate is administered at a dose of about 3.3 mg/kg.

98. The method of any one of claims 92-97, wherein the administration produces a Cmax of about 90-160 μg/mL.

99. The method of claim 98, wherein the administration produces a Cmax of about 90-150 μg/mL.

100. The method of any one of claims 92-99, wherein the administration produces a Cmax of about 110-160 μg/mL.

101. The method of claim 100, wherein the administration produces a Cmax of about 110-150 μg/mL.

102. The method of any one of claims 92-101, wherein the administration produces an $AUC_{0-24}$ of no more than 2700 hr•μg/mL.

103. The method of any one of claims 92-102, wherein the immunoconjugate comprises an antibody or antigen-binding fragment thereof that comprises the CDRs of SEQ ID NOs: 6-9, 11, and 12.

104. The method of claim 103, wherein the antibody is huMov19.

105. The method of any one of claims 92-104, wherein the immunoconjugate comprises a maytansinoid.

106. The method of claim 105, wherein the maytansinoid is DM4.

107. The method of any one of claims 92-106, wherein the immunoconjugate comprises the linker sulfo-SPDB.

108. The method of any one of claims 92-107, wherein the immunoconjugate is IMGN853.

109. The method of any one of claims 92-108, wherein the immunoconjugate is administered intravenously.

110. The method of any one of claims 92-109, wherein said cancer is selected from the group consisting of ovarian, brain, breast, uterine, endometrial, pancreatic, renal, and lung cancer.

111. The method of claim 110, wherein the lung cancer is non small cell lung cancer.

112. The method of claim 111, wherein the non small cell lung cancer is adenocarcinoma.

113. The method of claim 110, wherein the ovarian cancer is epithelial ovarian cancer.

114. The method of claim 113, wherein the epithelial ovarian cancer is platinum resistant, relapsed, or refractory.

115. The method of claim 110, wherein the cancer is endometrial cancer.

116. The method of any one of claims 92-115, wherein a sample obtained from the patient exhibits FOLR1 expression as measured by immunohistochemistry (IHC).

117. The method of claim 116, wherein the sample has a staining intensity of at least 2 hetero.

118. The method of claim 116, wherein the sample has a staining intensity of at least 2 homo.

119. The method of claim 116, wherein the sample has a staining intensity of at least 3 hetero.

120. The method of claim 116, wherein the sample has a staining intensity of at least 3 homo.

121. The method of any one of claims 92-120, further comprising administering a steroid to the patient.

122. The method of claim 121, wherein the steroid is dexamethasone.

123. The method of any one of claims 92-122, wherein the administration results in a decrease in tumor size.

124. The method of any one of claims 92-110, 113, 114, and 116-123, wherein the cancer is ovarian cancer and wherein the administration results in a decrease in CA125.

125. The method of any one of claims 92-124, wherein the administration results in a decrease in toxicity.

126. The method of claim 125, wherein the toxicity is ocular toxicity.

127. The method of any one of claims 92-126, further comprising administering a second compound having anti-cancer properties.

128. The method of any one of claims 92, 93, and 98-127, wherein the immunoconjugate is administered at a dose of about 2.8 mg/kg.

129. The method of any one of claims 92, 93, and 98-127, wherein the immunoconjugate is administered at a dose of about 3.0 mg/kg.

130. The method of any one of claims 92, 93, and 98-127, wherein the immunoconjugate is administered at a dose of about 3.75 mg/kg.

131. The mtheod of any one of claims 92-101 and 103-130, wherein the administration produces an $AUC_{0-24}$ of no more than 2785 hr•μg/mL

132. The method of any one of claims 92-101 and 103-130, wherein the administration produces an $AUC_{0-24}$ of no more than 2741 hr•μg/mL.

WHAT IS CLAIMED IS:

1. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, , wherein the immunoconjugate is to be administered at a dose of 6 milligrams (mg) per kilogram (kg) of adjusted ideal body weight (AIBW) of a patient.

2. The use of claim 1, wherein the administration produces a Cmax of about 90-160 μg/mL.

3. The use of claim 2, wherein the administration produces a Cmax of about 90-150 μg/mL.

4. The use of any one of claims 1-3, wherein the administration produces an area-under-the-curve $(AUC)_{0-24}$ of no more than 2700 hr•μg/mL.

5. The use of any one of claims 1-4, wherein the immunoconjugate is to be administered once every three weeks.

6. The use of any one of claims 1-4, wherein the immunoconjugate is to be administered once every week.

7. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, wherein the immunoconjugate is to be administered at a dose of 6 milligrams (mg) per kilogram (kg) of adjusted ideal body weight (AIBW) of a patient, and wherein the administration produces a Cmax of about 110-160 μg/mL.

8. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, wherein the immunoconjugate is to be administered at a dose of 6 milligrams (mg) per kilogram (/kg) of adjusted ideal body weight (AIBW) of a patient, and wherein the administration produces an $AUC_{0-24}$ of no more than 2700 hr•μg/mL.

9. The use of any one of claims 1-8, wherein the immunoconjugate comprises an antibody or antigen-binding fragment thereof that comprises the variable light chain (VL) complementarity determining region (CDR)-1 of SEQ ID NO: 6, the VL CDR-2 of SEQ ID NO: 7, the VL CDR-3 of SEQ ID NO: 8, the variable heavy chain (VH) CDR-1 of SEQ ID NO: 9, the VH CDR-2 of SEQ ID NO: 11, and the VH CDR-3 of SEQ ID NO: 12.

10. The use of claim 9, wherein the antibody comprises (i) a heavy chain comprising the same amino acid sequence as the amino acid sequence of the heavy chain encoded by the plasmid

deposited with the American Type Culture Collection (ATCC) as PTA-10772 and (ii) a light chain comprising the same amino acid sequence as the amino acid sequence of the light chain encoded by the plasmid deposited with the ATCC as PTA-10774.

11. The use of any one of claims 1-10, wherein the immunoconjugate comprises a maytansinoid.

12. The use of claim 11, wherein the maytansinoid is DM4.

13. The use of any one of claims 1-12, wherein the immunoconjugate comprises the linker sulfo-SPDB.

14. The use of any one of claims 1-13, wherein the immunoconjugate comprises DM4 and an antibody comprising (i) a heavy chain comprising the same amino acid sequence as the amino acid sequence of the heavy chain encoded by the plasmid deposited with the American Type Culture Collection (ATCC) as PTA-10772 and (ii) a light chain comprising the same amino acid sequence as the amino acid sequence of the light chain encoded by the plasmid deposited with the ATCC as PTA-10774, and wherein the DM4 is linked to the antibody by sulfo-SPDB.

15. The use of any one of claims 1-13, wherein the immunoconjugate comprises DM4 and an antibody comprising (i) a heavy chain comprising the amino acid sequence of SEQ ID NO: 13 and (ii) a light chain comprising the amino acid sequence of SEQ ID NO: 15, and wherein the DM4 is linked to the antibody by sulfo-SPDB.

16. The use of any one of claims 1-15, wherein the immunoconjugate is formulated for IV administration.

17. The use of any one of claims 1-16, wherein said cancer is selected from the group consisting of ovarian, brain, breast, uterine, endometrial, pancreatic, renal, lung cancer, and cancer of the peritoneum.

18. The use of claim 17, wherein the lung cancer is non small cell lung cancer.

19. The use of claim 17, wherein the cancer is cancer of the peritoneum.

20. The use of claim 17, wherein the ovarian cancer is epithelial ovarian cancer.

21. The use of claim 20, wherein the ovarian cancer is platinum resistant, relapsed, or refractory.

22. The use of claim 17, wherein the cancer is endometrial cancer.

23. The use of any one of claims 1-22, wherein a sample obtained from the patient exhibits FOLR1 expression as measured by immunohistochemistry (IHC).

24. The use of claim 23, wherein the sample has a staining intensity of at least 2 hetero.

25. The use of claim 23, wherein the sample has a staining intensity of at least 2 homo.

26. The use of claim 23, wherein the sample has a staining intensity of at least 3 hetero.

27. The use of claim 23, wherein the sample has a staining intensity of at least 3 homo.

28. The use of any one of claims 1-27, further comprising administering a steroid to the patient.

29. The use of claim 28, wherein the steroid is dexamethasone.

30. The use of any one of claims 1-17, 20, 21, and 23-29, wherein the cancer is ovarian cancer and wherein the administration results in a decrease in CA125.

31. The use of any one of claims 1-30, wherein the administration results in a decrease in toxicity.

32. The use of claim 31, wherein the toxicity is ocular toxicity.

33. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, wherein the medicament is formulated for administration at an effective dose, and wherein the administration produces an $AUC_{0-24}$ of no more than 2741 hr•μg/mL.

34. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, wherein the medicament is formulated for administration once a week for three weeks on a four-week schedule.

35. Use of an immunoconjugate which binds to FOLR1 polypeptide in the manufacture of a medicament for the treatment of a FOLR1 expressing cancer, wherein the immunoconjugate is to be administered at a dose of about 1 to about 7 milligrams (mg) per kilogram (kg) of adjusted ideal body weight (AIBW) of a patient, and wherein the administration is to occurs once a week for three weeks on a four-week schedule.