WE CLAIM:

1. A method of treating a solid tumor cancer that overexpresses cMet, comprising administering to a human subject having said cancer an anti-cMet antibody drug conjugate ("ADC") in an amount and for a period of time sufficient to provide a therapeutic benefit.

2. The method of claim 1 in which the cMet overexpressing cancer is of a cancer type in which cMet is overexpressed in at least about 10% of a patient population having the cancer type.

3. The method of claim 1 in which a biopsy of the cMet overexpressing tumor tissue from the subject has an IHC score of 2+ and/or an H-score from 150 to 224, when measured according to the cMet ABBV-ADC staining protocol.

4. The method of claim 1 in which a biopsy of the cMet overexpressing tumor tissue from the subject has an IHC score of 3+ and/or an H-score greater than 225, when measured according to the cMet ABBV-ADC staining protocol.

5. The method according to any one of claims 1-4 in which the cMet overexpressing cancer is non-small cell lung cancer ("NSCLC").

6. The method of claim 5, in which the NSCLC is a non-squamous NSCLC.

7. The method of claim 5 in which the NSCLC is squamous NSCLC.

8. The method of claim 6 in which the non-squamous NSCLC is an adeonocarcinoma.

9. The method of claim 1 in which the cancer is colorectal cancer ("CRC").

10. The method of claim 1 in which the cancer is head & neck ("H&N") cancer.

11. The method of claim 1 in which the cancer is pancreatic cancer.

12. The method of claim 1 in which the cMet overexpressing cancer is resistant to prior treatment with targeted and/or non-targeted chemotherapy.

13. The method of claim 1 in which the cMet overexpressing cancer is resistant to prior treatment with an anti-cMet antibody.

14. The method of claim 1 in which the anti-cMet ADC is administered as monotherapy.

15. The method of claim 1 in which the anti-cMet ADC is administered adjunctive to an additional anticancer agent, where the additional agent is administered according to its FDA-approved dosing regimen.

16. The method of claim 15 in which the additional anticancer agent is an inhibitor of epidermal growth factor receptor ("EGFR").

17. The method of claim 16 in which the additional anticancer agent is erlotinib.

18. The method of claim 15 in which the additional anticancer agent is an inhibitor of PD1.

19. The method of claim 18 in which the inhibitor of PD1 is an anti-PD1 antibody.

20. The method of claim 19 in which the anti-PD1 antibody is nivolumab.

21. The method of any one of claims 1-20 in which the anti-cMet ADC is administered in an amount ranging from about 0.15 mg/kg to about 3.3 mg/kg once every three weeks.

22. The method of claim 21 in which the anti-cMet ADC is administered in an amount of about 2.7 mg/kg.

23. The method of any one of claims 1-20 in which the anti-cMet ADC is administered in an amount ranging from about 0.15 mg/kg to about 3.3 mg/kg once every two weeks.

24. The method of claim 23 in which the anti-cMet ADC is administered in an amount of about 1.6 mg/kg once every two weeks.

25. The method of claim 23 in which the anti-cMet ADC is administered in an amount of about 1.9 mg/kg once every two weeks.

26. The method of any one of claims 1-25 in which the anti-cMet ADC comprises an anti-cMet antibody linked to a cytostatic and/or cytotoxic agent by way of a linker.

27. The method of claim 26 in which the anti-cMet antibody is a full-length antibody.

28. The method of claim 26 in which the anti-cMet antibody comprises a V_H chain comprising three CDRs, namely V_H CDR #1 (SEQ ID NO:112), V_H CDR #2 (SEQ ID NO:113) and V_H CDR #3 (SEQ ID NO: 114); a V_L chain comprising three CDRs, namely V_L CDR #1 (SEQ ID NO: 115), V_L CDR #2 (SEQ ID NO: 116) and V_L CDR #3 (SEQ ID NO: 117); and a modified hinge region of SEQ ID NO: 170.

29. The method of claim 26 in which the anti-cMet antibody comprises a V_H chain of SEQ ID NO: 78; a V_L chain of SEQ ID NO: 79; and a modified hinge region of SEQ ID NO: 170.

30. The method of claim 29 in which the anti-cMet antibody is an IgG1.

31. The method of claim 26 in which the anti-cMet antibody comprises a heavy chain of SEQ ID NO: 86 and a light chain of SEQ ID NO: 87.

32. The method of claim 31 in which the anti-cMet antibody is ABBV399.

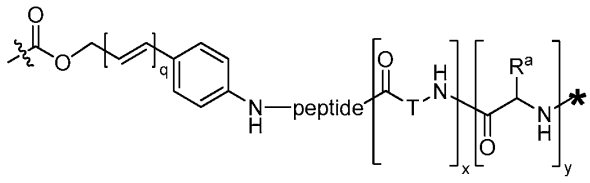
33. The method of claim 26 in which the anti-cMet antibody comprises a heavy chain of SEQ ID NO: 171 and a light chain of SEQ ID NO: 172.

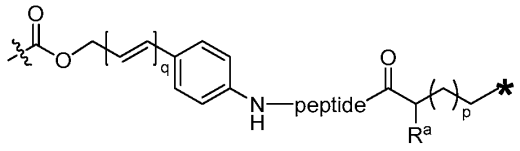
34. The method of claim 33 in which the anti-cMet antibody is ABT-700 (S238C)-PBD.

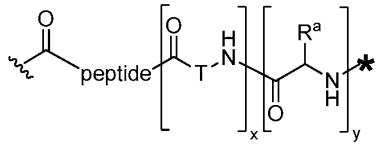
35. The method of claim 26 in which the anti-cMet antibody comprises the six CDRs of the antibody STI-D0602/STI-0602.

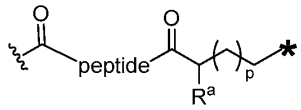
36. The method of claim 26 in which the anti-cMet antibody comprises a V_H chain of STI-D0602/STI-0602 and a V_L chain of STI-D0602/STI-0602.

37. The method of claim 26 in which the linker comprises a segment according to one or more of structural formulae (IVa), (IVb), (IVc) and (IVd):

(IVa) 

(IVb) 

(IVc) 

(IVd) 

or a salt thereof, in which:

peptide represents a peptide (illustrated C→N and not showing the carboxy and amino "termini") cleavable by Cathepsin B;

T represents a polymer comprising one or more ethylene glycol units or an alkylene chain, or combinations thereof;

R^a is selected from hydrogen, alkyl, sulfonate and methyl sulfonate;

p is an integer ranging from 0 to 5;

q is 0 or 1;

x is 0 or 1;

y is 0 or 1;

 represents the point of attachment of the linker to the cytotoxic and/or cytostatic agent; and

* represents the point of attachment to the remainder of the linker.

38. The method of claim 37 in which peptide is selected from the group consisting of Val-Cit; Cit-Val; Ala-Ala; Ala-Cit; Cit-Ala; Asn-Cit; Cit-Asn; Cit-Cit; Val-Glu; Glu-Val; Ser-Cit; Cit-Ser; Lys-Cit; Cit-Lys; Asp-Cit; Cit-Asp; Ala-Val; and Val-Ala and salts thereof.

39. The method of claim 38 in which the peptide is Val-Cit.

40. The method of claim 26 in which the anti-cMet ADC has an average drug-to-antibody ratio ("DAR") in the range of 0-10.

41. The method of claim 26 in which the anti-cMet ADC has an average drug-to-antibody ratio ("DAR") in the range of 1-4.

42. The method of claim 41 in which the anti-cMet ADC has a DAR in the range of 2-4.

43. The method of claim 41 in which the anti-cMet ADC has a DAR of about 3.1.

44. The method of claim 41 in which the anti-cMet ADC has an about 1:1 ratio of E2 and E4 ADC.

45. The method of claim 41 in which the anti-cMet ADC has a DAR of 3.0.

46. The method of claim 26 in which the cytostatic and/or cytotoxic agent is a microtubule inhibitor.

47. The method of claim 46 in which the microtubule inhibitor is an auristatin.

48. The method of claim 47 in which the auristatin is MMAE or MMAF.

49. The method of claim 47 in which the auristatin is MMAE.

50. The method of claim 26 in which the anti-cMet ADC is a compound according to structural formula (I):

(I) $[D\text{-}L\text{-}XY\text{-}]_n\text{-}Ab$

or a salt thereof, in which:

D is the cytotoxic and/or cytostatic agent;

L is the linker;

Ab is the anti-cMet antibody;

XY represents a covalent linkage linking linker L to antibody Ab; and

n has a value ranging from 2 to 8.

51. The method of claim 50 in which n has a value of 2, 3 or 4.

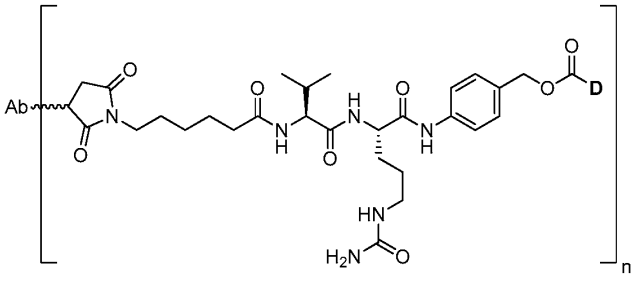
52. The method of claim 50 in which XY is a linkage formed with an amino group on anti-cMet antibody Ab.

53. The method of claim 50 in which XY is an amide or a thiourea.

54. The method of claim 50 in which XY is a linkage formed with a sulfhydryl group on anti-cMet antibody Ab.

55. The method of claim 50 in which XY is a thioether.

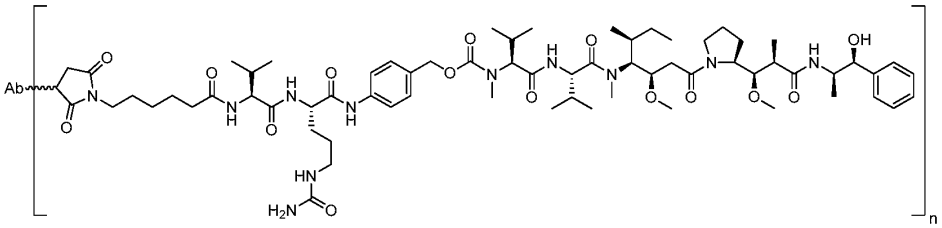
56. The method of claim 50 in which the compound according to structural formula (I) has the structure of formula (IIa):



(IIa).

57. The method of claim 56 in which anti-cMet antibody is ABT-700.

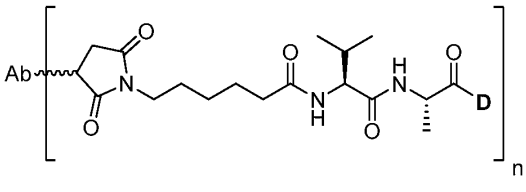
58. The method of claim 50 in which the compound of structural formula (I) has the following structure:



.

59. The method of claim 58 in which anti-cMet antibody is ABT-700.

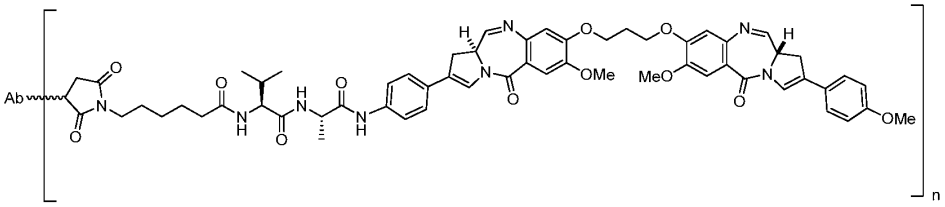
60. The method of claim 50 in which the compound according to structural formula (I) has the structure of formula (IIb):



(IIb).

61. The method of claim 60 in which anti-cMet antibody is ABT-700.

62. The method of claim 50 in which the compound according to structural formula (I) has the following structure:



63. The method of claim 62 in which anti-cMet antibody b is ABT-700.

64. A method of treating a human patient diagnosed with non-small cell lung cancer ("NSCLC") comprising administering to the patient an anti-cMet antibody drug conjugate ("ADC") in an amount and for a period of time sufficient to provide therapeutic benefit.

65. The method of claim 64 in which the NSCLC tumor tissue has an immunohistochemistry ("IHC") H-score of greater than or equal to 150 when measured according to the cMet ABBV-ADC staining protocol or an IHC score of 2+.

66. The method of claim 64 in which the NSCLC tumor tissue has an immunohistochemistry ("IHC") H-score of greater than 225 when measured according to the cMet ABBV-ADC staining protocol or an IHC score of 3+.

67. The method of claim 64 in which the NSCLC tumor tissue has an IHC score of 2+ and/or an H-score from 150 to 224, when measured according to the cMet ABBV-ADC staining protocol.

68. The method according to any one of claims 64, 65, and 66 in which the NSCLC is a non-squamous cell carcinoma.

69. The method according to any one of of claims 64, 65, and 67 in which the NSCLC is a squamous cell carcinoma.

70. The method according to claim 64 in which the anti-cMet ADC is administered as monotherapy.

71. The method according to claim 64 in which the anti-cMet ADC is administered adjunctive to an additional anticancer agent, where the additional agent is administered according to its FDA-approved dosing regimen.

72. The method of claim 71 in which the additional anticancer agent is an inhibitor of epidermal growth factor receptor ("EGFR").

73. The method of claim 72 in which the additional anticancer agent is erlotinib, administered once daily.

74. The method of claim 71 in which the additional anticancer agent is an inhibitor of PD1.

75. The method of claim 74 in which the inhibitor of PD1 is an anti-PD1 antibody.

76. The method of claim 75 in which the anti-PD1 antibody is nivolumab.

77. The method of claim 64 in which the anti-cMet ADC is administered in an amount ranging from about 0.15 mg/kg to about 3.3 mg/kg, once every 3 weeks.

78. The method of claim 77 in which the anti-cMet ADC is administered in an amount of about 2.7 mg/kg once every 3 weeks.

79. The method of claim 64 in which the anti-cMet ADC is administered in an amount ranging from about 0.15 mg/kg to about 3.3 mg/kg, once every 2 weeks.

80. The method of claim 79 in which the anti-cMet ADC is administered in an amount of about 1.6 mg/kg, once every 2 weeks.

81. The method of claim 64 in which the anti-cMet ADC is administered in an amount of about 1.9 mg/kg, once every 2 weeks.

82. The method of any one of claims 64 through 81 in which the anti-cMet ADC comprises an anti-cMet antibody linked to a cytostatic and/or cytotoxic agent by way of a linker.

83. The method of claim 82 in which the anti-cMet antibody is a full-length antibody.

84. The method of claim 82 in which the anti-cMet antibody comprises a V_H chain comprising three CDRs, namely V_H CDR #1 (SEQ ID NO:112), V_H CDR #2 (SEQ ID NO:113) and V_H CDR #3 (SEQ ID NO: 114); a V_L chain comprising three CDRs, namely V_L CDR #1 (SEQ ID NO: 115), V_L CDR #2 (SEQ ID NO: 116) and V_L CDR #3 (SEQ ID NO: 117); and a modified hinge region of SEQ ID NO: 170.

85. The method of claim 84 in which the anti-cMet antibody comprises a V_H chain of SEQ ID NO: 78; a V_L chain of SEQ ID NO: 79; and a modified hinge region of SEQ ID NO: 170.

86. The method of claim 85 in which the anti-cMet antibody is an IgG1.

87. The method of claim 84 in which the anti-cMet antibody comprises a heavy chain of SEQ ID NO: 86 and a light chain of SEQ ID NO: 87.

88. The method of claim 84 in which the anti-cMet antibody comprises a heavy chain of SEQ ID NO: 171 and a light chain of SEQ ID NO: 172.

89. The method of claim 82 in which the anti-cMet antibody comprises comprises the six CDRs of the antibody STI-D0602/STI-0602.

90. The method of claim 89 in which the anti-cMet antibody is an IgG1.

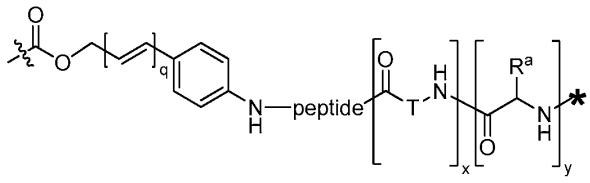
91. The method of claim 82 in which the anti-cMet antibody comprises a V_H chain of STI-D0602/STI-0602 and a V_L chain of STI-D0602/STI-0602.

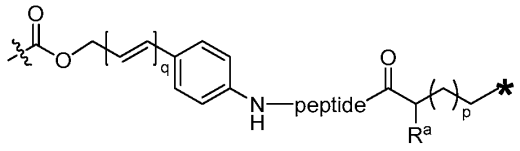
92. The method of claim 91 in which the anti-cMet antibody is an IgG1.

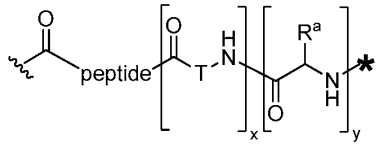
93. The method of claim 82 in which the linker is cleavable by a lysosomal enzyme.

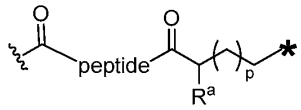
94. The method of claim 93 in which the lysosomal enzyme is Cathepsin B.

95. The method of claim 94 in which the linker comprises a segment according to one or more of structural formulae (IVa), (IVb), (IVc) and (IVd):

(IVa) 

(IVb) 

(IVc) 

(IVd) 

or a salt thereof, in which:

peptide represents a peptide (illustrated C→N and not showing the carboxy and amino "termini") cleavable by Cathepsin B;

T represents a polymer comprising one or more ethylene glycol units or an alkylene chain, or combinations thereof;

R^a is selected from hydrogen, alkyl, sulfonate and methyl sulfonate;

p is an integer ranging from 0 to 5;

q is 0 or 1;

x is 0 or 1;

y is 0 or 1;

 represents the point of attachment of the linker to the cytotoxic and/or cytostatic agent; and

* represents the point of attachment to the remainder of the linker.

96. The method of claim 95 in which peptide is selected from the group consisting of Val-Cit; Cit-Val; Ala-Ala; Ala-Cit; Cit-Ala; Asn-Cit; Cit-Asn; Cit-Cit; Val-Glu; Glu-Val; Ser-Cit; Cit-Ser; Lys-Cit; Cit-Lys; Asp-Cit; Cit-Asp; Ala-Val; and Val-Ala and salts thereof.

97. The method of claim 96 in which the peptide is Val-Cit.

98. The method of claim 82 in which the anti-cMet ADC has an average drug-to-antibody ratio ("DAR") in the range of 0-10.

99. The method of claim 82 in which the anti-cMet ADC has an average drug-to-antibody ratio ("DAR") in the range of 1-4.

100. The method of claim 99 in which the anti-cMet ADC has a DAR in the range of 2-4.

101. The method of claim 99 in which the anti-cMet ADC has a DAR of about 3.1.

102. The method of claim 99 in which the anti-cMet ADC has an about 1:1 ratio of E2 and E4 ADC.

103. The method of claim 99 in which the anti-cMet ADC has a DAR of 3.0.

104. The method according to any one of claims 82 through 103 in which the cytostatic and/or cytotoxic agent is a microtubule inhibitor.

105. The method of claim 104 in which the microtubule inhibitor is an auristatin.

106. The method of claim 105 in which the auristatin is MMAE or MMAF.

107. The method of claim 106 in which the auristatin is MMAE.

108. The method according to claim 82 in which the anti-cMet ADC is a compound according to structural formula (I):

(I) $[D\text{-}L\text{-}XY\text{-}]_n\text{-}Ab$

or a salt thereof, in which:

D is the cytotoxic and/or cytostatic agent;

L is the linker;

Ab is the anti-cMet antibody;

XY represents a covalent linkage linking linker L to antibody Ab; and

n has a value ranging from 2 to 8.

109. The method of claim 108 in which n has a value of 2, 3 or 4.

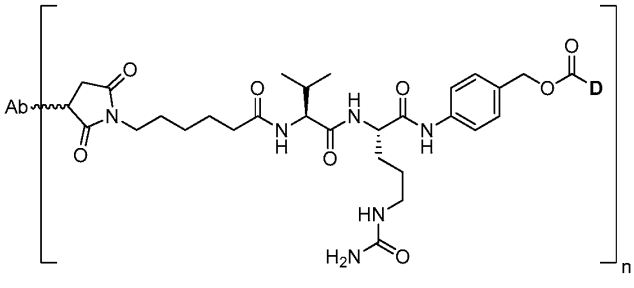
110. The method of claim 108 in which XY is a linkage formed with an amino group on anti-cMet antibody Ab.

111. The method of claim 108 in which XY is an amide or a thiourea.

112. The method of claim 108 in which XY is a linkage formed with a sulfhydryl group on anti-cMet antibody Ab.

113. The method of claim 108 in which XY is a thioether.

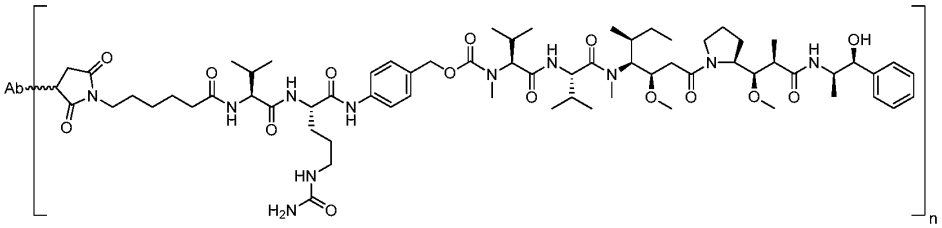
114. The method of claim 108 in which the compound according to structural formula (I) has the structure of formula (IIa):



(IIa).

115. The method of claim 114 in which anti-cMet antibody is ABT-700.

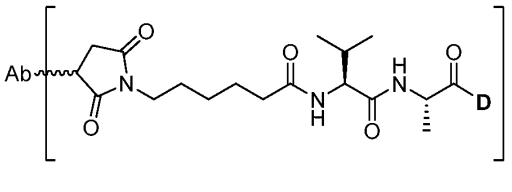
116. The method of claim 108 in which the compound of structural formula (I) has the following structure:



.

117. The method of claim 116 in which anti-cMet antibody is ABT-700.

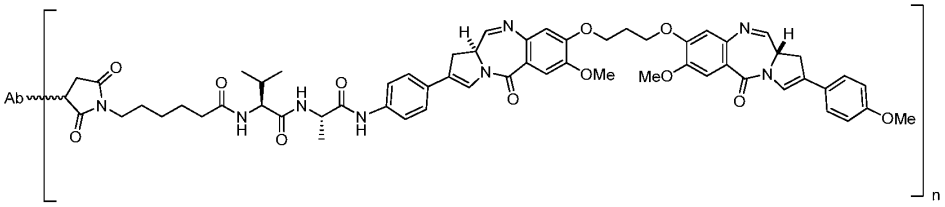
118. The method of claim 108 in which the compound according to structural formula (I) has the structure of formula (IIb):



(IIb).

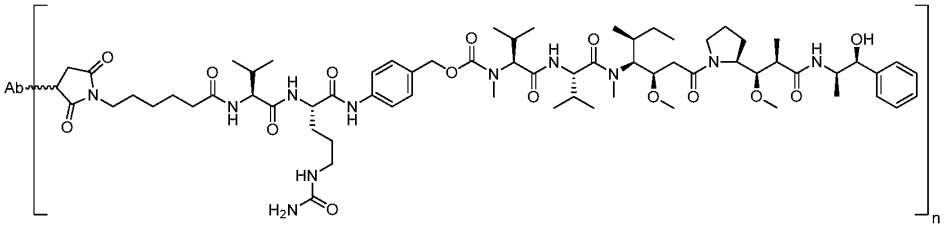
119. The method of claim 118 in which anti-cMet antibody is ABT-700.

120. The method of claim 108 in which the compound according to structural formula (I) has the following structure:



121. The method of claim 120 in which anti-cMet antibody is ABT-700.

122. A method of treating a human subject having a NSCLC tumor with an IHC score of at least 2+ or an H score of 150 or greater in at least one tumor biopsy from the subject, comprising administering to the subject an anti-cMet ADC in an amount of about 2.7 mg/kg once every two weeks or once every 3 weeks, in which the anti-cMet ADC is a compound according to the following structure:



or a pharmaceutically acceptable salt thereof, in which n has a value ranging from 2-4 and Ab is a full-length anti-cMet antibody.

123. The method of claim 122 in which the anti-cMet antibody is ABT-700.

124. The method of claim 123 in which the anti-cMet ADC is administered as monotherapy.

125. The method of claim 122 in which the anti-cMetADC is administered adjunctive to an additional anticancer agent.

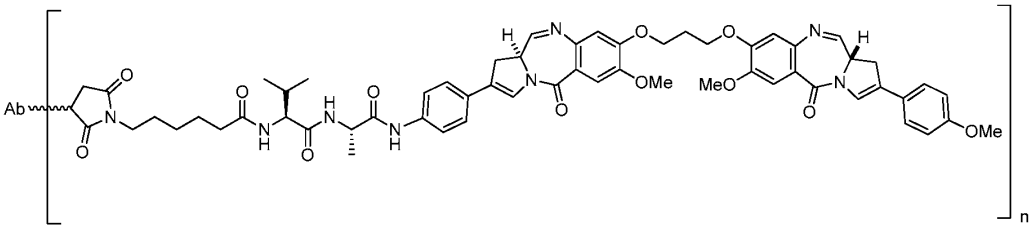
126. The method of claim 125 in which the additional anticancer agent is erlotinib.

127. The method of claim 125 in which the additional anticancer agent is Nivolumab.

128. The method of claim 50 in which the drug is a pyrrolobenzodiazepine (PBD), preferably PBD ((S)-2-(4-aminophenyl)-7-methoxy-8-(3-(((S)-7-methoxy-2-(4-methoxyphenyl)-5-oxo-5,11a-dihydro-1H-benzo[e]pyrrolo[1,2-a][1,4]diazepin-8-yl)oxy)propoxy)-1H-benzo[e]pyrrolo[1,2-a][1,4]diazepin-5(11aH)-one); SG2000 (SJG-136; (11aS,11a'S)-8,8'-(propane-1,3-diylbis(oxy))bis(7-methoxy-2-methylene-2,3-dihydro-1H-benzo[e]pyrrolo[1,2-a][1,4]diazepin-5(11aH)-one)) (or SGD-1882).

129. The method of claim 128 in which the drug is a pyrrolobenzodiazepine (PBD), preferably SGD-1882.

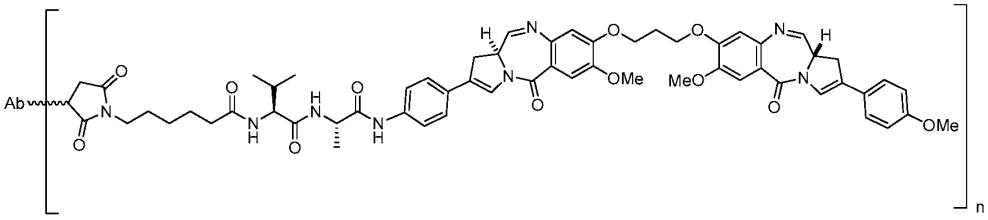
130. The method according to claim 50, in which the compound of formula I has the following structure:



in which Ab is the antibody and n is 2.

131. The method according to claim 130 in which the antibody comprises an heavy chain of SEQ ID NO: 171 and a light chain of SEQ ID NO:172.

132. The method according to claim 50 in which the cMet ADC is the compound of formula



in which the antibody comprises an heavy chain of SEQ ID NO: 171 and a light chain of SEQ ID NO:172.

133. A method of treating a human subject having a NSCLC adenocarcinoma, comprising administering to the subject ABBV-399 once every 3 weeks in an amount of about 2.7 mg/kg, in which the adenocarcinoma has an H-score of at least 225.

134. A method of treating a human subject having a NSCLC adenocarcinoma, comprising administering to the subject ABBV-399 once every 3 weeks in an amount of about 2.7 mg/kg, in which the adenocarcinoma has an IHC score of 3+.

135. The method according to any one of claims 133 and 134, in which ABBV-399 is administered adjunctive to erlotinib, in which the the erlotinib is administered once daily at 150 mg.

136. A method of treating a human subject having a NSCLC squamous cell carcinoma, comprising administering to the subject ABBV-399 once every 2 weeks in an amount of about 1.6 mg/kg or 1.9 mg/kg, in which the squamous cell carcinoma has an H-score of from 150 to 224.

137. A method of treating a human subject having a NSCLC squamous cell carcinoma, comprising administering to the subject ABBV-399 once every 2 weeks in an amount of about 1.6 or 1.9 mg/kg, in which the squamous cell carcinoma has an IHC score of 2+.