CLAIMS

What is claimed is:

1. An immunoconjugate comprising an: a) antigen binding region; b) an immunoglobulin heavy chain constant region; and c) a chelating agent; wherein the molecular weight of the immunoconjugate is between 60 and 110 kDa, wherein the immunoglobulin chain constant region comprises an alteration to one or more amino acid residues that reduces binding of the immunoconjugate to the neonatal Fc receptor (FcRn).

2. The immunoconjugate of claim 1, wherein the antigen binding region comprises an scFv polypeptide or a VHH polypeptide.

~~3. The immunoconjugate of claim 1, wherein the antigen binding region comprises an scFv polypeptide.~~

~~4. The immunoconjugate of claim 1, wherein the antigen binding region comprises a VHH polypeptide.~~

~~5. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region is humanized.~~

~~6~~3. The immunoconjugate of any one of claims 1 to ~~4~~2, wherein the antigen binding region specifically binds to HER2 or to DLL3.

~~7. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region specifically binds to HER2.~~

~~8. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region comprises: a) a heavy chain CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 21; b) a heavy chain CDR2 comprising the amino acid sequence set forth in SEQ ID NO: 22; and c) a heavy chain CDR3 comprising the amino acid sequence set forth in SEQ ID NO: 23 and that binds to HER2.~~

~~9. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region comprises a sequence that is at least 85%, 90%, 95%, 97%, 98%, 99%, or 100% identical to the sequence set forth in SEQ ID NO: 20 and that binds to HER2.~~

~~10. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region specifically binds to DLL3.~~

~~11. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region comprises: a) a heavy chain CDR1 comprising the amino acid sequence set forth in SEQ ID NO: 31; b) a heavy chain CDR2 comprising the amino acid sequence set forth in SEQ ID NO: 32; and c) a heavy chain CDR3 comprising the amino acid sequence set forth in SEQ ID NO: 33 and that binds to DLL3.~~

12. The immunoconjugate of any one of claims 1 to 4, wherein the antigen binding region comprises a sequence that is at least 85%, 90%, 95%, 97%, 98%, 99%, or 100% identical to the sequence set forth in SEQ ID NO: 30 and that binds to DLL3.

13. The immunoconjugate of any one of claims 1 to 12, wherein the immunoglobulin heavy chain constant region comprises a CH2 domain of an immunoglobulin, CH3 domain of an immunoglobulin, or a CH2 and a CH3 domain of an immunoglobulin.

14. The immunoconjugate of any one of claims 1 to 12, wherein the immunoglobulin heavy chain constant region comprises a CH2 and a CH3 domain of an immunoglobulin.

15. The immunoconjugate of any one of claims 1 to 14, wherein the immunoglobulin heavy chain constant region is a human immunoglobulin heavy chain constant region.

16. The immunoconjugate of any one of claims 1 to 15, wherein the immunoglobulin heavy chain constant region is an IgA, IgG1, IgG2, IgG3, or IgG4 isotype.

17. The immunoconjugate of any one of claims 1 to 15, wherein the immunoglobulin heavy chain constant region is an IgG1 isotype.

18. The immunoconjugate of any one of claims 1 to 15, wherein the immunoglobulin heavy chain constant region is an IgG4 isotype.

19. The immunoconjugate of any one of claims 1 to 18, wherein the immunoglobulin heavy chain constant region comprises an alteration to one or more amino acid residues that reduces an effector function of the immunoglobulin heavy chain constant region or alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn).

20. The immunoconjugate of any one of claims 1 to 18, wherein the immunoglobulin heavy chain constant region comprises an alteration to one or more amino acid residues that reduces an effector function of the immunoglobulin heavy chain constant region and alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn).

21. The immunoconjugate of any one of claims 1 to 18, wherein the immunoglobulin heavy chain constant region comprises an alteration to one or more amino acid residues that reduces an effector function of the immunoglobulin heavy chain constant region.

22. The immunoconjugate of any one of claims 1 to 18, wherein the immunoglobulin heavy chain constant region comprises an alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn).

23. The immunoconjugate of any one of claim 19 to 22, wherein the alteration to one or more amino acid residues that reduces the effector function of the immunoglobulin heavy chain constant region is an alteration that reduces complement dependent cytotoxicity (CDC), antibody-dependent cell-cytotoxicity (ADCC), antibody-dependent cell-phagocytosis ADCP, or a combination thereof.

~~24. The immunoconjugate of any one of claims 19 to 23, wherein the alteration to one or more amino acid residues that reduces the effector function of the immunoglobulin heavy chain constant region is selected from the list consisting of: (a) 297A, 297Q, 297G, or 297D, (b) 279F, 279K, or 279L, (c) 228P, (d) 235A, 235E, 235G, 235Q, 235R, or 235S, (e) 237A, 237E, 237K, 237N, or 237R, (f) 234A, 234V, or 234F, (g) 233P, (h) 328A, (i) 327Q or 327T, (j) 329A, 329G, 329Y, or 329R (k) 331S, (l) 236F or 236R, (m) 238A, 238E, 238G, 238H, 238I, 238V, 238W, or 238Y, (n) 248A, (o) 254D, 254E, 254G, 254H, 254I, 254N, 254P, 254Q, 254T, or 254V, (p) 255N, (q) 256H, 256K, 256R, or 256V, (r) 264S, (s) 265H, 265K, 265S, 265Y, or 265A, (t) 267G, 267H, 267I, or 267K, (u) 268K, (v) 269N or 269Q, (w) 270A, 270G, 270M, or 270N, (x) 271T, (y) 272N, (z) 292E, 292F, 292G, or 292I, (aa) 293S, (bb) 301W, (cc) 304E, (dd) 311E, 311G, or 311S, (ee) 316F, (ff) 328V, (gg) 330R, (hh) 339E or 339L, (ii) 343I or 343V, (jj) 373A, 373G, or 373S, (kk) 376E, 376W, or 376Y, (ll) 380D, (mm) 382D or 382P, (nn) 385P, (oo) 424H, 424M, or 424V, (pp) 434I, (qq) 438G, (rr) 439E, 439H, or 439Q, (ss) 440A, 440D, 440E, 440F, 440M, 440T, or 440V, (tt) K322A, (uu) L235E, (vv) L234A and L235A, (ww) L234A, L235A, and G237A, (xx) L234A, L235A, and P329G, (yy) L234F, L235E, and P331S, (zz) L234A, L235E, and G237A, (aaa), L234A, L235E, G237A, and P331S (bbb) L234A, L235A, G237A, P238S, H268A, A330S, and P331S, (ccc) L234A, L235A, and P329A, (ddd) G236R and L328R, (eee) G237A, (fff) F241A, (ggg) V264A, (hhh) D265A, (iii) D265A and N297A, (jjj) D265A and N297G, (kkk) D270A, (lll) A330L, (mmm) P331A or P331S, or (nnn) E233P, (ooo) L234A, L235E, G237A, A330S, and P331S or (ppp) any combination of (a) – (ppp), per EU numbering.~~

~~25~~4. The immunoconjugate of any one of claims ~~19 to 22~~1 to 3, wherein the immunoglobulin chain constant region further comprises an alteration to one or more amino acid residues that reduces effector function of the immunoglobulin heavy chain constant region; and optionally wherein the alteration to one or more amino acid residues that reduces the effector function of the immunoglobulin heavy chain constant region comprises L234A, L235E, G237A, A330S, and P331S per EU numbering.

~~26~~5. The immunoconjugate of any one of claims ~~19 to 25~~1 to 4, wherein the amino acid alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) reduces the serum half-life of the immunoconjugate.

~~27. The immunoconjugate of any one of claims 19 to 22, wherein the alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) is to an amino acid residue selected from the list consisting of: 251, 252, 253, 254, 255, 288, 309, 310, 312, 385, 386, 388, 400, 415, 433, 435, 436, 439, 447, and combinations thereof per EU numbering.~~

~~28. The immunoconjugate of any one of claims 19 to 22, wherein the alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) is to an amino acid residue selected from the list consisting of: 253, 254, 310, 435, 436 and combinations thereof per EU numbering.~~

~~29~~6. The immunoconjugate of any one of claims ~~19 to 22~~1 to 5, wherein the alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) is to an amino acid residue selected from the list consisting of: ~~I253A, I253D, I253P, S254A,~~ H310A, H310D, H310E, H310Q, H435A, H435Q, ~~Y436A,~~ and combinations thereof per EU numbering.

~~30. The immunoconjugate of any one of claims 19 to 22, wherein the alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) is to an amino acid residue selected from the list consisting of: I253A, S254A, H310A, H435Q, Y436A and combinations thereof per EU numbering.~~

~~31. The immunoconjugate of any one of claims 19 to 22, wherein the alteration to one or more amino acid residues that alters binding of the immunoconjugate to the neonatal Fc receptor (FcRn) is to an amino acid residue selected from the list consisting of: I253A, H310A, H435Q, and combinations thereof per EU numbering.~~

~~32. The immunoconjugate of any one of claims 19 to 31, wherein the immunoconjugate has a serum half-life of less than 15 days.~~

~~33. The immunoconjugate of any one of claims 19 to 31, wherein the immunoconjugate has a serum half-life of less than 10 days.~~

~~34. The immunoconjugate of any one of claims 19 to 31, wherein the immunoconjugate has a serum half-life of less than 120 hours.~~

~~35~~7. The immunoconjugate of any one of claims ~~19 to 31~~1 to 6, wherein the immunoconjugate has a serum half-life of less than 72 hours.

~~36. The immunoconjugate of any one of claims 1 to 35, wherein the antigen binding region is coupled to the immunoglobulin heavy chain constant region by a linker amino acid sequence or a human IgG hinge region.~~

~~37. The immunoconjugate of any one of claims 1 to 36, wherein the antigen binding region is coupled to the immunoglobulin heavy chain constant region by a human IgG hinge region.~~

~~38. The immunoconjugate of any one of claims 1 to 37, wherein the chelating agent is a radioisotope chelating agent.~~

~~39~~8. The immunoconjugate of any one of claims ~~1 to 37~~1 to 7, wherein the chelating agent is a alpha emitter chelating agent or a beta- or gamma-emitter chelating agent, optionally wherein the chelating agent is selected from the list consisting of: DOTA, DO3A, DOTAGA, DOTAGA

anhydride, Py4Pa, Py4Pa-NCS, Crown, Macropa, Macropa-NCS, HEHA, CHXoctapa, Bispa, Noneunpa, and combinations thereof.

409. The immunoconjugate of any one of claims 1 to 371 to 8, wherein the chelating agent is a beta- or gamma-emitter chelating agent.

41. The immunoconjugate of any one of claims 1 to 38, wherein the chelating agent is selected from the list consisting of: DOTA, DO3A, DOTAGA, DOTAGA anhydride, Py4Pa, Py4Pa-NCS, Crown, Macropa, Macropa-NCS, HEHA, CHXoctapa, Bispa, Noneunpa, and combinations thereof.

42. The immunoconjugate of any one of claims 1 to 38, wherein the chelating agent is selected from the list consisting of: DOTMA, DOTPA, DO3AM-acetic acid, DOTP, DOTMP, DOTA-4AMP, CB-TE2A, NOTA, NOTP, TETPA, TETA, PEPA, H4Octapa, H2Dedpa, DO2P, EDTA, DTPA-BMA, 3,2,3-LI(HOPO), 3,2-HOPO, Neunpa, Neunpa-NCS, Octapa, PyPa, Porphyrin, Deferoxamine, DFO*, and combinations thereof.

43. The immunoconjugate of any one of claims 1 to 38, wherein the chelating agent is DOTA.

44. The immunoconjugate of any one of claims 1 to 38, wherein the chelating agent is DOTAGA.

45. The immunoconjugate of any one of claims 1 to 38, wherein the chelating agent is Py4Pa.

46. The immunoconjugate of any one of claims 1 to 45, wherein the chelating agent is directly coupled to the antigen binding region and/or the immunoglobulin heavy chain constant region.

4710. The immunoconjugate of any one of claims 1 to 451 to 9, wherein the chelating agent is coupled to the antigen binding region and/or the immunoglobulin heavy chain constant region by a linker, wherein the. linker or a linker precursor used to form the linker is selected from: 6-maleimidocaproyl (MC), maleimidopropanoyl (MP), valine-citrulline (val-cit), alanine-phenylalanine (ala-phe), p-aminobenzyloxycarbonyl (PAB), and those resulting from conjugation with linker reagents: N-Succinimidyl 4-(2-pyridylthio) pentanoate forming linker moiety 4-mercaptopentanoic acid (SPP), Succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate (SMCC), N-Succinimidyl 4-(2-pyridyldithio)butanoate (SPDB), N-Succinimidyl (4-iodo-acetyl) aminobenzoate (SIAB), polyethylene glycol (PEG), a polyethylene glycol polymers (PEGn), and S-2-(4-Isothiocyanatobenzyl) (SCN).

48. The immunoconjugate of claim 47, wherein the linker is selected from: 6-maleimidocaproyl (MC), maleimidopropanoyl (MP), valine-citrulline (val-cit), alanine-

~~phenylalanine (ala-phe), p-aminobenzyloxycarbonyl (-PAB), and those resulting from conjugation with linker reagents: N-Succinimidyl 4-(2-pyridylthio) pentanoate forming linker moiety 4-mercaptopentanoic acid (SPP), Succinimidyl 4-(N-maleimidomethyl)cyclohexane-1-carboxylate (SMCC), N-Succinimidyl 4-(2-pyridyldithio)butanoate (SPDB), N-Succinimidyl (4-iodo-acetyl) aminobenzoate (SIAB), polyethylene glycol (PEG), a polyethylene glycol polymers (PEG_n), and S-2-(4-Isothiocyanatobenzyl) (SCN).~~

~~49. The immunoconjugate of claim 47, wherein the linker is selected from: polyethylene glycol (PEG), a polyethylene glycol polymers (PEG), and S-2-(4-isothiocyanatobenzyl) (SCN).~~

~~50. The immunoconjugate of claim 47, wherein the linker is PEG_5.~~

~~51. The immunoconjugate of claim 47, wherein the linker is SCN.~~

~~52. The immunoconjugate of any one of claims 1 to 51, wherein the chelating agent is a linker-chelator selected from the list consisting of: TFP-Ad-PEG5-DOTAGA, p-SCN-Bn-DOTA, p-SCN-Ph-Et-Py4Pa, and TFP-Ad-PEG5-Ac-Py4Pa.~~

~~53. The immunoconjugate of any one of claims 1 to 52, wherein the chelating agent is TFP-Ad-PEG5-DOTAGA.~~

~~54. The immunoconjugate of any one of claims 1 to 52, wherein the chelating agent is p-SCN-Bn-DOTA.~~

~~55. The immunoconjugate of any one of claims 1 to 52, wherein the chelating agent is p-SCN-Ph-Et-Py4Pa.~~

~~56. The immunoconjugate of any one of claims 1 to 52, wherein the chelating agent is TFP-Ad-PEG5-Ac-Py4Pa.~~

~~57. The immunoconjugate of any one of claims 1 to 56, wherein the chelating agent is coupled to the antigen binding region and/or the immunoglobulin heavy chain constant region at a ratio of 1:1 to 8:1.~~

~~58. The immunoconjugate of any one of claims 1 to 56, wherein the chelating agent is coupled to the antigen binding region and/or the immunoglobulin heavy chain constant region at a ratio of 1:1 to 6:1.~~

~~59. The immunoconjugate of any one of claims 1 to 56, wherein the chelating agent is coupled to the antigen binding region and/or the immunoglobulin heavy chain constant region at a ratio of 2:1 to 6:1.~~

~~60~~11. The immunoconjugate of any one of claims ~~1 to 59~~1 to 10, further comprising a radioisotope, wherein the radioisotope is an alpha emitter or a beta emitter.

~~61. The immunoconjugate of claim 60, wherein the radioisotope is an alpha emitter.~~

~~62~~12. The immunoconjugate of claim ~~60~~11, wherein the radioisotope is an alpha emitter selected from the list consisting of 225-Ac, 223-Ra, 224-Ra, 227-Th, 212-Pb, 212-Bi, and 213-Bi.

~~63. The immunoconjugate of claim 60, wherein the radioisotope is 225-Ac.~~

~~64. The immunoconjugate of claim 60, wherein the radioisotope is a beta emitter.~~

~~65~~13. The immunoconjugate of claim ~~60~~11, wherein the radioisotope is a beta emitter selected from 177-Lu, 90-Y, 67-Cu, and 153-Sm.

~~66. The immunoconjugate of any one of claims 1 to 65, wherein the molecular weight of the immunoconjugate is between 60 and 100 kDa.~~

~~67~~14. The immunoconjugate of any one of claims ~~1 to 65~~1 to 13, wherein the molecular weight of the immunoconjugate is between 60 and 90 kDa.

~~68. The immunoconjugate of any one of claims 1 to 65, wherein the molecular weight of the immunoconjugate is between 65 and 90 kDa.~~

~~69. The immunoconjugate of any one of claims 1 to 65, wherein the molecular weight of the immunoconjugate is between 70 and 90 kDa.~~

~~70. The immunoconjugate of any one of claims 1 to 69, wherein the immunoconjugate forms a dimer with another immunoconjugate.~~

~~71. The immunoconjugate of any one of claims 1 to 70 further comprising a pharmaceutically acceptable excipient or carrier.~~

~~72. The immunoconjugate of any one of claims 1 to 71, formulated for intravenous administration.~~

~~73. A method of making the immunoconjugate of any one of claims 1 to 70, comprising loading the immunoconjugate with a radioisotope.~~

~~74. The method of claim 73, wherein the radioisotope is an alpha emitter.~~

~~75. The method of claim 73, wherein the radioisotope is an alpha emitter selected from the list consisting of 225-Ac, 223-Ra, 224-Ra, 227-Th, 212-Pb, 212-Bi, and 213-Bi.~~

~~76. The method of claim 73, wherein the radioisotope is 225-Ac.~~

~~77. The method of claim 73, wherein the radioisotope is a beta emitter.~~

~~78. The method of claim 73, wherein the radioisotope is a beta emitter selected from 177-Lu, 90-Y, 67-Cu, and 153-Sm.~~

~~79. The method of claim 73, wherein the radioisotope is 177-Lu.~~

~~80. A method of treating a cancer or a tumor in an individual comprising administering to the individual the immunoconjugate of any one of claims 60 to 72, thereby treating the cancer or the tumor.~~

~~81. The method of claim 80, wherein the individual is a human individual.~~

~~82. The method of claim 80 or 81, wherein the cancer or the tumor is a solid cancer or tumor.~~

~~83. The method of claim 80 or 81, wherein the cancer or the tumor comprises lung cancer, breast cancer, ovarian cancer, or a neuroendocrine cancer.~~

~~84. The method of any one of claims 80 to 82, comprising administering from 0.5 μCi to 30.0 μCi per kilogram to the individual.~~

~~85. The method of any one of claims 80 to 82, comprising administering from 10 m Ci to 75 mCi per meter squared of body area to the individual.~~

~~86. The method of any one of claims 80 to 85, wherein the cancer or tumor expresses an antigen specifically bound by the immunoconjugate.~~

~~87~~15. ~~The~~ Use of the immunoconjugate of any one of claims ~~60 to 72~~11 to 14~~, for use in a method of~~ in the manufacture of a medicament for treating a cancer or a tumor in an individual.

~~88. The use of claim 87, wherein the individual is a human individual.~~

~~89. The use of claim 87 or 88, wherein the cancer or tumor is a solid cancer or tumor.~~

~~90. The use of any one of claims 87 to 89, wherein the cancer or the tumor comprises lung cancer, breast cancer, ovarian cancer, or a neuroendocrine cancer.~~

~~91. The use of any one of claims 87 to 90, wherein from 0.5 μCi to 30.0 μCi per kilogram is administered to the individual.~~

~~92. The use of any one of claims 87 to 91, comprising administering from 10 m Ci to 75 mCi per meter squared of body area to the individual.~~

~~93. The use of any one of claims 87 to 92, wherein the cancer or tumor expresses an antigen specifically bound by the immunoconjugate.~~

~~94. A method of killing a cancer cell in an individual comprising administering to the individual the immunoconjugate of any one of claims 60 to 72, thereby killing the cancer cell.~~

~~95. The method of claim 94, wherein the individual is a human individual.~~

~~96. The method of claim 94 or 95, wherein the cancer cell comprises lung cancer cell, a breast cancer cell, an ovarian cancer cell, or a neuroendocrine cancer cell.~~

~~97. The method of any one of claims 94 to 96, wherein the cancer cell expresses an antigen specifically bound by the immunoconjugate.~~

~~98. The immunoconjugate of any one of claims 60 to 72, for use in a method of killing a cancer cell in an individual.~~

~~99. The use of claim 98, wherein the individual is a human individual.~~

~~100. The use of claim 98 or 99, wherein the cancer cell comprises a lung cancer cell, a breast cancer cell, an ovarian cancer cell, or a neuroendocrine cancer cell.~~

~~101. The use of any one of claims 98 to 100, comprising administering from 0.5 μCi to 30.0 μCi per kilogram to the individual.~~

~~102. The use of any one of claims 98 to 101, wherein the cancer cell expresses an antigen specifically bound by the immunoconjugate.~~

~~103. A method of delivering a radioisotope to a cancer cell or a tumor cell in an individual comprising administering to the individual the immunoconjugate of any one of claims 60 to 72, thereby delivering the radioisotope to the cancer cell or the tumor cell.~~

~~104. The method of claim 103, wherein the individual is a human individual.~~

~~105. The method of claim 103 or 104, wherein the cancer cell or tumor cell comprises a lung cancer cell, a breast cancer cell, an ovarian cancer cell, or a neuroendocrine cancer cell.~~

~~106. The method of any one of claims 103 to 105, wherein the cancer cell or tumor cell expresses an antigen specifically bound by the immunoconjugate.~~

~~107~~16. ~~The~~ Use of the immunoconjugate of any one of claims ~~60 to 72~~11 to 14~~, for use in~~ in the manufacture of a medicament for delivering a radioisotope to a cancer cell or a tumor cell in an individual.

~~108. The use of claim 107, wherein the individual is a human individual.~~

~~109. The use of claim 107 or 108, wherein the cancer cell or the tumor cell comprises a lung cancer cell, a breast cancer cell, an ovarian cancer cell, or a neuroendocrine cancer cell.~~

~~110. The use of any one of claims 107 to 109, wherein the cancer cell or the tumor cell expresses an antigen specifically bound by the immunoconjugate.~~

~~111. A method of imaging a tumor in an individual comprising administering to the individual the immunoconjugate of any one of claims 60 to 72.~~

~~112. The method of claim 111, wherein the individual is a human individual.~~

~~113. The method of claim 111 or 112, wherein the tumor comprises lung cancer, breast cancer, ovarian cancer, or a neuroendocrine cancer.~~

~~114. The method of any one of claims 111 to 113, wherein the tumor expresses an antigen specifically bound by the immunoconjugate.~~

~~115~~17. ~~The~~ Use of the immunoconjugate of any one of claims ~~60 to 72~~11 to 14~~, for use in a method of~~in the manufacture of a medicament for imaging a tumor in an individual.

~~116. The use of claim 115, wherein the individual is a human individual.~~

~~117. The use of claim 115 or 116, wherein the cancer or the tumor comprises lung cancer, breast cancer, ovarian cancer, or a neuroendocrine cancer.~~

~~118. The use of any one of claims 115 to 117, wherein the tumor expresses an antigen specifically bound by the immunoconjugate.~~

~~119. A nucleic acid encoding the immunoconjugate of any one of claims 1 to 36.~~

~~120. An expression vector comprising the nucleic acid of claim 119.~~

~~121. A cell comprising the nucleic acid of claim 119 or the expression vector of claim 120.~~

~~122. The cell of claim 121, wherein the cell is a eukaryotic cell.~~

~~123. The cell of claim 122, wherein the eukaryotic cell is a CHO cell.~~

18. The immunoconjugate of any of claims 11 to 14 for use in therapy.