

What is claimed:

- 1) A method of treating a cancer in a subject, comprising administering a therapeutically effective amount of an anti-CD38 antibody and a T cell redirecting therapeutic to the subject to treat the cancer.
- 2) A method of enhancing efficacy of a T cell redirecting therapeutic in a subject having a cancer, comprising administering to the subject an anti-CD38 antibody.
- 3) The method of claim 1 or 2, wherein the anti-CD38 antibody is administered prior to administering the T cell redirecting therapeutic.
- 4) The method of any one of claims 1-3, wherein the T cell redirecting therapeutic binds BCMA, GPRC5D, CD33, CD123, CD19, PSMA, TMEFF2 or CD20.
- 5) The method of any one of claims 1-4, wherein the T cell redirecting therapeutic binds CD3, CD3 epsilon (CD3ε), CD8, KI2L4, NKG2E, NKG2D, NKG2F, BTNL3, CD186, BTNL8, PD-1, CD195, or NKG2C.
- 6) The method of claim 5, wherein the T cell redirecting therapeutic comprises a CD3 binding domain comprising
 - a) a heavy chain complementarity determining region 1 (HCDR1) of SEQ ID NO: 33, a HCDR2 of SEQ ID NO: 34, a HCDR3 of SEQ ID NO: 35, a light chain complementarity determining region 1 (LCDR1) of SEQ ID NO: 36, a LCDR2 of SEQ ID NO: 37 and a LCDR3 of SEQ ID NO: 38;
 - b) a heavy chain variable region (VH) of SEQ ID NO: 39 and a light chain variable region (VL) of SEQ ID NO: 40;
 - c) the HCDR1 of SEQ ID NO: 74, the HCDR2 of SEQ ID NO: 75, the HCDR3 of SEQ ID NO: 76, the LCDR1 of SEQ ID NO: 77, the LCDR2 of SEQ ID NO: 78 and the LCDR3 of SEQ ID NO: 79;
 - d) the VH of SEQ ID NO: 80 and the VL of SEQ ID NO: 81;
 - e) the HCDR1, the HCDR2, the HCDR3, the LCDR1, the LCDR2 and the LCDR3 of a CD3 binding domain of SEQ ID NO: 53; or
 - f) the VH and the VL of the CD3 binding domain of SEQ ID NO: 53.
- 7) The method of claim 5, wherein the T cell redirecting therapeutic comprises
 - a) a BCMA binding domain comprising the HCDR1 of SEQ ID NO: 23, the HCDR2 of SEQ ID NO: 24, the HCDR3 of SEQ ID NO: 25, the LCDR1 of SEQ ID NO: 26, the LCDR2 of SEQ ID NO: 27 and the LCDR3 of SEQ ID NO: 28, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38; and/or

- b) the BCMA binding domain comprising the VH of SEQ ID NO: 29 and the VL of SEQ ID NO: 30, and the CD3 binding domain comprising the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 8) The method of claim 7, wherein the T cell redirecting therapeutic comprises a first heavy chain (HC1) of SEQ ID NO: 31, a first light chain (LC1) of SEQ ID NO: 32, a second heavy chain (HC2) of SEQ ID NO: 41, and a second light chain (LC2) of SEQ ID NO: 42.
- 9) The method of claim 5, wherein the T cell redirecting therapeutic comprises
 - a) a GPRC5D binding domain comprising the HCDR1 of SEQ ID NO: 43, the HCDR2 of SEQ ID NO: 44, the HCDR3 of SEQ ID NO: 45, the LCDR1 of SEQ ID NO: 46, the LCDR2 of SEQ ID NO: 47 and the LCDR3 of SEQ ID NO: 48, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38; and/or
 - b) the GPRC5D binding domain comprising the VH of SEQ ID NO: 49 and the VL of SEQ ID NO: 50, and the CD3 binding domain comprising the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 10) The method of claim 9, wherein the T cell redirecting therapeutic comprises the HC1 of SEQ ID NO: 51, the LC1 of SEQ ID NO: 52, the HC2 of SEQ ID NO: 41, and the LC2 of SEQ ID NO: 42.
- 11) The method of claim 5, wherein the T cell redirecting therapeutic comprises
 - a) a CD33 binding domain comprising the HCDR1 of SEQ ID NO: 84, the HCDR2 of SEQ ID NO: 85, the HCDR3 of SEQ ID NO: 86, the LCDR1 of SEQ ID NO: 87, the LCDR2 of SEQ ID NO: 88 and the LCDR3 of SEQ ID NO: 89, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 74, the HCDR2 of SEQ ID NO: 75, the HCDR3 of SEQ ID NO: 76, the LCDR1 of SEQ ID NO: 77, the LCDR2 of SEQ ID NO: 78 and the LCDR3 of SEQ ID NO: 79; and/or
 - b) the CD33 binding domain comprising the VH of SEQ ID NO: 90 and the VL of SEQ ID NO: 91, and the CD3 binding domain comprising the VH of SEQ ID NO: 80 and the VL of SEQ ID NO: 81.
- 12) The method of claim 11, wherein the T cell redirecting therapeutic comprises the HC1 of SEQ ID NO: 92, the LC1 of SEQ ID NO: 93, the HC2 of SEQ ID NO: 82 and the LC2 of SEQ ID NO: 83.
- 13) The method of claim 5, wherein the T cell redirecting therapeutic comprises
 - a) a CD123 binding domain comprising the HCDR1 of SEQ ID NO: 94, the HCDR2 of SEQ ID NO: 95, the HCDR3 of SEQ ID NO: 96, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10, and the LCDR3 of SEQ ID NO: 59, and a CD3 binding

- domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38; and/or
- b) the CD123 binding domain comprising the VH of SEQ ID NO: 100 and the VL of SEQ ID NO: 61, and the CD3 binding domain comprising the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 14) The method of claim 13, wherein the T cell redirecting therapeutic comprises the HC1 of SEQ ID NO: 102, the LC1 of SEQ ID NO: 63, the HC2 of SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42.
- 15) The method of claim 5, wherein the T-cell redirecting therapeutic comprises
- a) a CD19 binding domain comprising the HCDR1, the HCDR2, the HCDR3, the LCDR1, the LCDR2 and the LCDR3 of the CD19 binding domain of SEQ ID NO: 53 and a CD3 binding domain comprising the HCDR1, the HCDR2, the HCDR3, the LCDR1, the LCDR2 and the LCDR3 of the CD3 binding domain of SEQ ID NO 53; and/or
- b) the amino acid sequence of SEQ ID NO: 53.
- 16) The method of claim 5, wherein the T-cell redirecting therapeutic comprises
- a) a PSMA binding domain comprising the HCDR1 of SEQ ID NO: 54, the HCDR2 or SEQ ID NO: 55, the HCDR3 or SEQ ID NO: 56, the LCDR1 or SEQ ID NO: 9, the LCDR2 or SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 59, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38; and/or
- b) the PSMA binding domain comprising the VH of SEQ ID NO: 60 and the VL of SEQ ID NO: 61, and the CD3 binding domain comprising the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 17) The method of claim 16, wherein the T cell redirecting therapeutic comprises the HC1 of SEQ ID NO: 62, the LC1 of SEQ ID NO: 63, the HC2 of SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42.
- 18) The method of claim 5, wherein the T cell redirecting therapeutic comprises
- a) a TMEFF2 binding domain comprising the HCDR1 of SEQ ID NO: 64, the HCDR2 of SEQ ID NO: 65, the HCDR3 of SEQ ID NO: 66, the LCDR1 of SEQ ID NO: 67, the LCDR2 of SEQ ID NO: 68 and the LCDR3 of SEQ ID NO: 69, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 74, the HCDR2 of SEQ ID NO: 75, the HCDR3 or SEQ ID NO: 76, the LCDR1 or SEQ ID NO: 77, the LCDR2 or SEQ ID NO: 78 and the LCDR3 of SEQ ID NO: 79; and/or

- b) the TMEFF2 binding domain comprising the VH of SEQ ID NO: 70 and the VL of SEQ ID NO: 71, and the CD3 binding domain comprising the VH of SEQ ID NO: 80 and the VL of SEQ ID NO: 81.
- 19) The method of claim 18, wherein the T-cell redirecting therapeutic comprises the HC1 of SEQ ID NO: 72, the LC1 of SEQ ID NO: 73, the HC2 of SEQ ID NO: 82 and the LC2 of SEQ ID NO: 83.
- 20) The method of any one of claims 1-19, wherein the T cell redirecting therapeutic is a multispecific antibody, a chimeric antigen receptor (CAR), or a T cell comprising the CAR.
- 21) The method of claim 20, wherein the multispecific antibody is an IgG1, an IgG2, an IgG3 or an IgG4 isotype.
- 22) The method of claim 21, wherein the multispecific antibody comprises one or more Fc substitutions that reduces binding of the multispecific antibody to a Fcγ receptor (FcγR).
- 23) The method of claim 22, wherein the one or more Fc substitutions is selected from the group consisting of F234A/L235A on IgG4, L234A/L235A on IgG1, V234A/G237A/P238S/H268A/V309L/A330S/P331S on IgG2, F234A/L235A on IgG4, S228P/F234A/L235A on IgG4, N297A on all Ig isotypes, V234A/G237A on IgG2, K214T/E233P/L234V/L235A/G236-deleted/A327G/P331A/D365E/L358M on IgG1, H268Q/V309L/A330S/P331S on IgG2, S267E/L328F on IgG1, L234F/L235E/D265A on IgG1, L234A/L235A/G237A/P238S/H268A/A330S/P331S on IgG1, S228P/F234A/L235A/G237A/P238S on IgG4 and S228P/F234A/L235A/G236-deleted/G237A/P238S on IgG4, wherein residue numbering is according to the EU index.
- 24) The method of claim 23, wherein the multispecific antibody further comprises a S228P substitution.
- 25) The method of any one of claims 20-24, wherein the multispecific antibody comprises one or more asymmetric substitutions in a first CH3 domain or in a second CH3 domain, or in both the first CH3 domain and the second CH3 domain.
- 26) The method of claim 25, wherein the one or more asymmetric substitutions is selected from the group consisting of F450L/K409R, wild-type/F409L_R409K, T366Y/F405A, T366W/F405W, F405W/Y407A, T394W/Y407T, T394S/Y407A, T366W/T394S, F405W/T394S and T366W/T366S_L368A_Y407V, L351Y_F405A_Y407V/T394W, T366I_K392M_T394W/F405A_Y407V, T366L_K392M_T394W/F405A_Y407V, L351Y_Y407A/T366A_K409F, L351Y_Y407A/T366V_K409F, Y407A/T366A_K409F and T350V_L351Y_F405A_Y407V/T350V_T366L_K392L_T394W.
- 27) The method of any one of claims 1-26, wherein the subject has a newly diagnosed cancer.
- 28) The method of any one of claims 1-27, wherein the subject is relapsed or refractory to a prior anti-cancer therapy.

- 29) The method of any one of claims 1-28, wherein the cancer is a hematological malignancy or a solid tumor.
- 30) The method of claim 29, wherein the hematological malignancy is a multiple myeloma, a smoldering multiple myeloma, a monoclonal gammopathy of undetermined significance (MGUS), an acute lymphoblastic leukemia (ALL), a diffuse large B-cell lymphoma (DLBCL), a Burkitt's lymphoma (BL), a follicular lymphoma (FL), a mantle-cell lymphoma (MCL), Waldenstrom's macroglobulinemia, a plasma cell leukemia, a light chain amyloidosis (AL), a precursor B-cell lymphoblastic leukemia, a precursor B-cell lymphoblastic leukemia, an acute myeloid leukemia (AML), a myelodysplastic syndrome (MDS), a chronic lymphocytic leukemia (CLL), a B cell malignancy, a chronic myeloid leukemia (CML), a hairy cell leukemia (HCL), a blastic plasmacytoid dendritic cell neoplasm, Hodgkin's lymphoma, non-Hodgkin's lymphoma, a marginal zone B-cell lymphoma (MZL) or a mucosa-associated lymphatic tissue lymphoma (MALT), plasma cell leukemia, anaplastic large-cell lymphoma (ALCL), leukemia or lymphoma.
- 31) The method of claim 30, wherein the multiple myeloma is a newly diagnosed multiple myeloma.
- 32) The method of claim 30, wherein the multiple myeloma is a relapsed or a refractory multiple myeloma.
- 33) The method of claim 31 or 32, wherein the multiple myeloma is a high-risk multiple myeloma.
- 34) The method of claim 33, wherein the subject having the high-risk multiple myeloma has one or more chromosomal abnormalities comprising:
- a) t(4;14)(p16;q32);
 - b) t(14;16)(q32;q23);
 - c) del17p;
 - d) 1qAmp;
 - e) t(4;14)(p16;q32) and t(14;16)(q32;q23);
 - f) t(4;14)(p16;q32) and del17p;
 - g) t(14;16)(q32;q23) and del17p; or
 - h) t(4;14)(p16;q32), t(14;16)(q32;q23) and del17p, or any combination thereof.
- 35) The method of claim 32, wherein the multiple myeloma is relapsed or refractory to treatment with the anti-CD38 antibody, lenalidomide, bortezomib, pomalidomide, carfilzomib, elotuzumab, ixazomib, melphalan or thalidomide, or any combination thereof.
- 36) The method of claim 29, wherein the solid tumor is a prostate cancer, a lung cancer, a liver cancer, cervical cancer, a colon cancer, a breast cancer, an ovarian cancer, an endometrial cancer, a pancreatic cancer, a melanoma, a glioblastoma, an esophageal cancer,

- a gastric cancer, a stomach cancer, a renal carcinoma, a colon cancer, a bladder cancer, a cervical carcinoma, a melanoma, a hepatocellular carcinoma, a renal cell carcinoma, an urothelial carcinoma, a head and neck cancer, a glioma or a glioblastoma.
- 37) The method of claim 36, wherein the prostate cancer is a relapsed, a refractory, a malignant or a castration resistant prostate cancer, or any combination thereof.
- 38) The method of claim 30, wherein the AML is AML with at least one genetic abnormality, AML with multilineage dysplasia, therapy-related AML, undifferentiated AML, AML with minimal maturation, AML with maturation, acute myelomonocytic leukemia, acute monocytic leukemia, acute erythroid leukemia, acute megakaryoblastic leukemia, acute basophilic leukemia, acute panmyelosis with fibrosis or myeloid sarcoma.
- 39) The method of claim 38, wherein the at least one genetic abnormality is a translocation between chromosomes 8 and 21, a translocation or an inversion in chromosome 16, a translocation between chromosomes 15 and 17, changes in chromosome 11, or mutation in fms-related tyrosine kinase 3 (FLT3), nucleophosmin (NPM1), isocitrate dehydrogenase 1 (IDH1), isocitrate dehydrogenase 2 (IDH2), DNA (cytosine-5)-methyltransferase 3 (DNMT3A), CCAAT/enhancer binding protein alpha (CEBPA), U2 small nuclear RNA auxiliary factor 1 (U2AF1), enhancer of zeste 2 polycomb repressive complex 2 subunit (EZH2), structural maintenance of chromosomes 1A (SMC1A) or structural maintenance of chromosomes 3 (SMC3).
- 40) The method of claim 39, wherein the at least one genetic abnormality is a translocation t(8; 21)(q22; q22), an inversion inv(16)(p13; q22), a translocation t(16; 16)(p13; q22), a translocation t(15; 17)(q22; q12), a mutation FLT3-ITD, mutations R132H or R100Q/R104V/F108L/R119Q/I130V in IDH1 or mutations R140Q or R172 in IDH2.
- 41) The method of claim 30, wherein the ALL is B-cell lineage ALL, T-cell lineage ALL, adult ALL or pediatric ALL.
- 42) The method of claim 41, wherein the subject with ALL has a Philadelphia chromosome or is resistant or has acquired resistance to treatment with a BCR-ABL kinase inhibitor.
- 43) The method of any one of claims 1-42, wherein the anti-CD38 antibody comprises the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 44) The method of any one of claims 1-43, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 45) The method of any one of claims 1-44, wherein the anti-CD38 antibody is an IgG1 isotype.
- 46) The method of any one of claims 1-45, wherein the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.

- 47) The method of any one of claims 1-42, wherein the anti-CD38 antibody comprises
- a) the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;
 - b) the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
 - c) the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or
 - d) the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.
- 48) The method of claim 47, wherein the anti-CD38 antibody is an IgG1 isotype.
- 49) The method of any one of claims 1-48, wherein the T-cell redirecting therapeutic is a BCMAxCD3 bispecific antibody, a GPRC5DxCD3 bispecific antibody, a CD33xCD3 bispecific antibody, a CD19xCD3 bispecific antibody, a CD123xCD3 bispecific antibody, a PSMAxCD3 bispecific antibody, or a TMEFF2xCD3 bispecific antibody.
- 50) The method of any one of claims 1-49, further comprising administering to the subject one or more anti-cancer therapies.
- 51) The method of claim 50, wherein the one or more anti-cancer therapies is selected from the group consisting of an autologous stem cell transplant (ASCT), radiation, surgery, a chemotherapeutic agent, an immunomodulatory agent and a targeted cancer therapy.
- 52) The method of claim 51, wherein the one or more anti-cancer therapies is selected from the group consisting of lenalidomide, thalidomide, pomalidomide, bortezomib, carfilzomib, elotuzumab, ixazomib, melphalan, dexamethasone, vincristine, cyclophosphamide, hydroxydaunorubicin, prednisone, rituximab, imatinib, dasatinib, nilotinib, bosutinib, ponatinib, bafetinib, saracatinib, tozasertib or danusertib, cytarabine, daunorubicin, idarubicin, mitoxantrone, hydroxyurea, decitabine, cladribine, fludarabine, topotecan, etoposide 6-thioguanine, corticosteroid, methotrexate, 6-mercaptopurine, azacitidine, arsenic trioxide and all-trans retinoic acid, or any combination thereof.
- 53) The method of any one of claims 1-52, wherein the anti-CD38 antibody is administered at a dose of between about 8 mg/kg and about 16 mg/kg.
- 54) The method of any one of claims 1-53, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising between about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 55) The method of any one of claims 1-52, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 56) The method of claim 55, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.

- 57) The method of claim 56, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) between about 5 mM and about 15 mM histidine;
 - b) between about 100 mM and about 300 mM sorbitol;
 - c) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - d) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 58) The method of claim 57, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 59) The method of claim 58, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 60) A method of treating a cancer in a subject, comprising administering a therapeutically effective amount of a BCMAxCD3 bispecific antibody and an anti-CD38 antibody to the subject to treat the cancer.
- 61) The method of claim 60, wherein the subject has been treated with an anti-CD38 antibody prior to administering the BCMAxCD3 bispecific antibody.
- 62) The method of claim 60 or 61, wherein the BCMAxCD3 bispecific antibody comprises a BCMA binding domain comprising the HCDR1 of SEQ ID NO: 23, the HCDR2 of SEQ ID NO: 24, the HCDR3 of SEQ ID NO: 25, the LCDR1 of SEQ ID NO: 26, the LCDR2 of SEQ ID NO: 27 and the LCDR3 of SEQ ID NO: 28, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38.

- 63) The method of claim 62, wherein the BCMA binding domain comprises the VH of SEQ ID NO: 29 and the VL of SEQ ID NO: 30, and the CD3 binding domain comprises the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 64) The method of any one of claims 60-62, wherein the BCMAxCD3 bispecific antibody is an IgG4 isotype and comprises phenylalanine at position 405 and arginine at position 409 in the HC1 and leucine at position 405 and lysine at position 409 in the HC2, wherein residue numbering is according to the EU Index.
- 65) The method of claim 64, wherein the BCMAxCD3 bispecific antibody further comprises proline at position 228, alanine at position 234 and alanine at position 235 in both the HC1 and the HC2.
- 66) The method of claim 65, wherein the BCMAxCD3 bispecific antibody comprises the HC1 of SEQ ID NO: 31, the LC1 of SEQ ID NO: 32, the HC2 of SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42.
- 67) The method of any one of claims 60-66, wherein the cancer is a BCMA expressing cancer.
- 68) The method of any one of claims 60-67, wherein the cancer is a hematological malignancy.
- 69) The method of any one of claims 60-68, wherein the subject is relapsed or refractory to treatment with the anti-CD38 antibody, lenalidomide, bortezomib, pomalidomide, carfilzomib, elotuzumab, ixazomib, melphalan or thalidomide, or any combination thereof.
- 70) The method of claim 69, wherein the subject is relapsed or refractory to treatment with the anti-CD38 antibody.
- 71) The method of claim 68, wherein the hematological malignancy is a multiple myeloma, myeloma, a DLBCL, a CLL, Waldenstrom's hypergammaglobulinaemia or non-Hodgkin's lymphoma.
- 72) The method of claim 71, wherein the multiple myeloma is a newly diagnosed multiple myeloma.
- 73) The method of claim 71, wherein the multiple myeloma is a relapsed or a refractory multiple myeloma.
- 74) The method of any one of claims 71-73, wherein the multiple myeloma is a high-risk multiple myeloma.
- 75) The method of claim 74, wherein the subject having the high-risk multiple myeloma has one or more chromosomal abnormalities comprising:
- a) t(4;14)(p16;q32);
 - b) t(14;16)(q32;q23);
 - c) del17p;
 - d) 1qAmp;
 - e) t(4;14)(p16;q32) and t(14;16)(q32;q23);

- f) t(4;14)(p16;q32) and del17p;
 - g) t(14;16)(q32;q23) and del17p; or
 - h) t(4;14)(p16;q32), t(14;16)(q32;q23) and del17p, or any combination thereof.
- 76) The method of any one of claims 60-75, wherein the anti-CD38 antibody comprises the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 77) The method of any one of claims 60-76, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 78) The method of any one of claims 60-77, wherein the anti-CD38 antibody is an IgG1 isotype.
- 79) The method of any one of claims 60-78, wherein the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.
- 80) The method of any one of claims 60-75, wherein the anti-CD38 antibody comprises
- a) the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;
 - b) the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
 - c) the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or
 - d) the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.
- 81) The method of claim 80, wherein the anti-CD38 antibody is an IgG1 isotype.
- 82) The method of any one of claims 60-81, wherein the anti-CD38 antibody is administered at a dose of between about 8 mg/kg and about 16 mg/kg.
- 83) The method of any one of claims 60-82, wherein the BCMAxCD3 bispecific antibody and the anti-CD38 antibody are administered by an intravenous injection.
- 84) The method of any one of claims 60-82, wherein the BCMAxCD3 bispecific antibody is administered by an intravenous injection and the anti-CD38 antibody is administered by a subcutaneous injection.
- 85) The method of any one of claims 60-84, wherein the subject is a human.
- 86) The method of any one of claims 60-85, further comprising administering to the subject one or more anti-cancer therapies.
- 87) The method of claim 86, wherein the one or more anti-cancer therapies is selected from the group consisting of an autologous stem cell transplant (ASCT), radiation, surgery, a chemotherapeutic agent, an immunomodulatory agent and a targeted cancer therapy.
- 88) The method of claim 86, wherein the one or more anti-cancer therapies is selected from the group consisting of lenalidomide, thalidomide, pomalidomide, bortezomib, carfilzomib, elotuzumab, ixazomib, melphalan, prednisone or dexamethasone, or any combination thereof.

- 89) The method of any one of claims 60-88, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising between about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 90) The method of any one of claims 60-88, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 91) The method of claim 90, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.
- 92) The method of claim 91, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) between about 5 mM and about 15 mM histidine;
 - b) between about 100 mM and about 300 mM sorbitol;
 - c) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - d) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 93) The method of claim 92, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 94) The method of claim 93, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.

- 95) A pharmaceutical composition comprising a BCMAxCD3 bispecific antibody comprising a BCMA binding domain comprising the VH of SEQ ID NO: 29 and the VL of SEQ ID NO: 30 and a CD3 binding domain comprising the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40, and an anti-CD38 antibody comprising the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 96) The pharmaceutical composition of claim 95, wherein the BCMAxCD3 bispecific antibody comprises the HC1 of SEQ ID NO: 31, the LC1 of SEQ ID NO: 32, the HC2 of SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42 and the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.
- 97) The pharmaceutical composition of claim 95 or 96, which is a non-fixed combination.
- 98) The pharmaceutical composition of claim 97, comprising from about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 99) The pharmaceutical composition of claim 97, comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 100) The pharmaceutical composition of claim 99, comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.
- 101) The pharmaceutical composition of claim 100, further comprising one or more excipients.
- 102) The pharmaceutical composition of claim 101, wherein the one or more excipients is histidine, methionine, sorbitol or polysorbate-20 (PS-20), or any combination thereof.
- 103) The pharmaceutical composition of claim 102, wherein the pharmaceutical composition comprises
- a) between about 100 mg/mL and about 120 mg/mL of the anti-CD38 antibody;
 - b) between about 5 mM and about 15 mM histidine;
 - c) between about 100 mM and about 300 mM sorbitol;
 - d) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - e) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 104) The pharmaceutical composition of claim 103, comprising about 10 mM histidine.
- 105) The pharmaceutical composition of claim 103 or 104, comprising about 300 mM sorbitol.
- 106) The pharmaceutical composition of any one of claims 103-105, comprising about 0.04% (w/v) PS-20.
- 107) The pharmaceutical composition of any one of claims 103-106, comprising about 1 mg/mL methionine.
- 108) The pharmaceutical composition of any one of claims 103-107, comprising

- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 109) The pharmaceutical composition of any one of claims 103-109s, comprising
- a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 110) A kit comprising the pharmaceutical composition of any one of claims 95-109.
- 111) A method of treating a cancer in a subject, comprising administering a therapeutically effective amount of a T-cell redirecting therapeutic that binds GPRC5D and an anti-CD38 antibody to the subject to treat the cancer.
- 112) The method of claim 111, wherein the anti-CD38 antibody is administered to subject prior to administering the T cell redirecting therapeutic that binds GPRC5D.
- 113) The method of claim 111 or 112, wherein the subject is relapsed or refractory to treatment with a prior anti-cancer therapeutic.
- 114) The method of any one of claims 111-113, wherein the cancer is a GPRC5D expressing cancer.
- 115) The method of claim 114, wherein the GPRC5D expressing cancer is a hematological malignancy or a solid tumor.
- 116) The method of claim 115, wherein the hematological malignancy is a leukemia, a lymphoma, or a multiple myeloma.
- 117) The method of claim 116, wherein the solid tumor is an ovarian cancer, a lung cancer, a stomach cancer, a prostate cancer, a renal carcinoma, a liver cancer, a pancreatic cancer, a colon cancer, an oesophageal cancer, a bladder cancer, a cervical carcinoma or a malignant melanoma.
- 118) The method of any one of claims 111-117, wherein the subject is relapsed or refractory to treatment with the anti-CD38 antibody, lenalinomide, bortezomib, pomalidomide, carfilzomib, elotuzumab, ixazomib, melphalan or thalidomide, or any combination thereof.
- 119) The method of claim 118, wherein the subject is relapsed or refractory to treatment with the anti-CD38 antibody.

- 120) The method of claim 117, wherein the multiple myeloma is a newly diagnosed multiple myeloma.
- 121) The method of claim 117, wherein the multiple myeloma is a relapsed or refractory multiple myeloma.
- 122) The method of claim 120 or 121, wherein the multiple myeloma is a high-risk multiple myeloma.
- 123) The method of claim 122, wherein the subject having the high-risk multiple myeloma has one or more chromosomal abnormalities comprising:
- a) t(4;14)(p16;q32);
 - b) t(14;16)(q32;q23);
 - c) del17p;
 - d) 1qAmp;
 - e) t(4;14)(p16;q32) and t(14;16)(q32;q23);
 - f) t(4;14)(p16;q32) and del17p;
 - g) t(14;16)(q32;q23) and del17p; or
 - h) t(4;14)(p16;q32), t(14;16)(q32;q23) and del17p, or any combination thereof.
- 124) The method of any one of claims 111-123, wherein the T-cell redirecting therapeutic binds CD3, CD3 epsilon (CD3ε), CD8, KI2L4, NKG2E, NKG2D, NKG2F, BTNL3, CD186, BTNL8, PD-1, CD195, or NKG2C.
- 125) The method of any one of claims 111-124, wherein the T-cell redirecting therapeutic comprises a GPRC5D binding domain comprising the HCDR1 of SEQ ID NO: 43, the HCDR2 of SEQ ID NO: 44, the HCDR3 of SEQ ID NO: 45, the LCDR1 of SEQ ID NO: 46, the LCDR2 of SEQ ID NO: 47 and the LCDR3 of SEQ ID NO: 48, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38.
- 126) The method of any one of claims 111-126, wherein the GPRC5D binding domain comprises the VH of SEQ ID NO: 49 and the VL of SEQ ID NO: 50 and the CD3 binding domain comprises the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40.
- 127) The method of any one of claims 111-126, wherein the T-cell redirecting therapeutic that binds GPRC5C is a multispecific antibody, a CAR or a T cell expressing the CAR.
- 128) The method of claim 127, wherein the multispecific antibody is an IgG1, an IgG2, an IgG3 or an IgG4 isotype.
- 129) The method of claim 128, wherein the multispecific antibody comprises one or more Fc substitutions that reduces binding of the multispecific antibody to a Fcγ receptor (FcγR).

- 130) The method of claim 129, wherein the one or more Fc substitutions is selected from the group consisting of F234A/L235A on IgG4, L234A/L235A on IgG1, V234A/G237A/P238S/H268A/V309L/A330S/P331S on IgG2, F234A/L235A on IgG4, S228P/F234A/L235A on IgG4, N297A on all Ig isotypes, V234A/G237A on IgG2, K214T/E233P/L234V/L235A/G236-deleted/A327G/P331A/D365E/L358M on IgG1, H268Q/V309L/A330S/P331S on IgG2, S267E/L328F on IgG1, L234F/L235E/D265A on IgG1, L234A/L235A/G237A/P238S/H268A/A330S/P331S on IgG1, S228P/F234A/L235A/G237A/P238S on IgG4 and S228P/F234A/L235A/G236-deleted/G237A/P238S on IgG4, wherein residue numbering is according to the EU index.
- 131) The method of claim 130, wherein the multispecific antibody further comprises a S228P substitution.
- 132) The method of any one of claims 127-131, wherein the multispecific antibody comprises one or more asymmetric substitutions in a first CH3 domain or in a second CH3 domain, or in both the first CH3 domain and the second CH3 domain.
- 133) The method of claim 132, wherein the one or more asymmetric substitutions is selected from the group consisting of F450L/K409R, wild-type/F409L_R409K, T366Y/F405A, T366W/F405W, F405W/Y407A, T394W/Y407T, T394S/Y407A, T366W/T394S, F405W/T394S and T366W/T366S_L368A_Y407V, L351Y_F405A_Y407V/T394W, T366I_K392M_T394W/F405A_Y407V, T366L_K392M_T394W/F405A_Y407V, L351Y_Y407A/T366A_K409F, L351Y_Y407A/T366V_K409F, Y407A/T366A_K409F and T350V_L351Y_F405A_Y407V/T350V_T366L_K392L_T394W.
- 134) The method of any one of claims 111-133, wherein the multispecific antibody comprises the HC1 of SEQ ID NO: 51, the LC1 of SEQ ID NO: 52, the HC2 of SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42.
- 135) The method of any one of claims 111-134, wherein the anti-CD38 antibody comprises the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 136) The method of any one of claims 111-135, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 137) The method of any one of claims 111-136, wherein the anti-CD38 antibody is an IgG1 isotype.
- 138) The method of any one of claims 111-137, wherein the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.
- 139) The method of any one of claims 111-138, wherein the anti-CD38 antibody comprises
- a) the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;

- b) the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
 - c) the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or
 - d) the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.
- 140) The method of claim 139, wherein the anti-CD38 antibody is an IgG1 isotype.
- 141) The method of any one of claims 111-140, wherein the anti-CD38 antibody is administered at a dose of between about 8 mg/kg and about 16 mg/kg.
- 142) The method of any one of claims 111-141, wherein the T-cell redirecting therapeutic that binds GPRC5D and the anti-CD38 antibody are administered by an intravenous injection.
- 143) The method of any one of claims 111-142, wherein the T-cell redirecting therapeutic that binds GPRC5D is administered by an intravenous injection and the anti-CD38 antibody is administered by a subcutaneous injection.
- 144) The method of any one of claims 111-143, wherein the subject is a human.
- 145) The method of any one of claims 111-144, wherein the T cell redirecting therapeutic that binds GPRC5D is a GPRC5DxCD3 bispecific antibody.
- 146) The method of any one of claims 111-145, further comprising administering to the subject one or more anti-cancer therapies.
- 147) The method of claim 146, wherein the one or more anti-cancer therapies is selected from the group consisting of an autologous stem cell transplant (ASCT), radiation, surgery, a chemotherapeutic agent, an immunomodulatory agent and a targeted cancer therapy.
- 148) The method of claim 146, wherein the one or more anti-cancer therapies is selected from the group consisting of lenalidomide, thalidomide, pomalidomide, bortezomib, carfilzomib, elotuzumab, ixazomib, melphalan, dexamethasone or prednisone.
- 149) The method of any one of claims 111-148, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising between about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 150) The method of any one of claims 111-149, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 151) The method of claim 150, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.
- 152) The method of claim 151, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) between about 100 mg/mL and about 120 mg/mL of the anti-CD38 antibody;

- b) between about 5 mM and about 15 mM histidine;
 - c) between about 100 mM and about 300 mM sorbitol;
 - d) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - e) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 153) The method of claim 152, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 154) The method of claim 153, wherein the anti-CD38 antibody is administered or provided for administration in a pharmaceutical composition comprising
- a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 155) A pharmaceutical combination comprising a GPRC5DxCD3 bispecific antibody comprising a GPRC5D binding domain comprising the HCDR1 of SEQ ID NO: 43, the HCDR2 of SEQ ID NO: 44, the HCDR3 of SEQ ID NO: 45, the LCDR1 of SEQ ID NO: 46, the LCDR2 of SEQ ID NO: 47 and the LCDR3 of SEQ ID NO: 48, and a CD3 binding domain comprising the HCDR1 of SEQ ID NO: 33, the HCDR2 of SEQ ID NO: 34, the HCDR3 of SEQ ID NO: 35, the LCDR1 of SEQ ID NO: 36, the LCDR2 of SEQ ID NO: 37 and the LCDR3 of SEQ ID NO: 38 and an anti-CD38 antibody comprising the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 156) The pharmaceutical combination of claim 155, wherein the GPRC5D binding domain comprises the VH of SEQ ID NO: 49 and the VL of SEQ ID NO: 50 and the CD3 binding domain comprises the VH of SEQ ID NO: 39 and the VL of SEQ ID NO: 40, and the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 157) The pharmaceutical combination of claim 156, wherein the GPRC5CxCD3 bispecific antibody comprises the HC1 of SEQ ID NO: 51, the LC1 of SEQ ID NO: 52, the HC2 of

SEQ ID NO: 41 and the LC2 of SEQ ID NO: 42, and the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.

- 158) The pharmaceutical combination of any one of claims 155-157, which is a non-fixed combination.
- 159) The pharmaceutical combination of claim 158, comprising from about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 160) The pharmaceutical combination of claim 158, comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 161) The pharmaceutical composition of claim 159, comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.
- 162) The pharmaceutical combination of claim 161, further comprising one or more excipients.
- 163) The pharmaceutical combination of claim 162, wherein the one or more excipients is histidine, methionine, sorbitol or polysorbate-20 (PS-20), or any combination thereof.
- 164) The pharmaceutical combination of claim 163, wherein the pharmaceutical composition comprises
- a) between about 100 mg/mL and about 120 mg/mL of the anti-CD38 antibody;
 - b) between about 5 mM and about 15 mM histidine;
 - c) between about 100 mM and about 300 mM sorbitol;
 - d) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - e) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 165) The pharmaceutical combination of claim 164, comprising about 10 mM histidine.
- 166) The pharmaceutical combination of claim 164 or 165, comprising about 300 mM sorbitol.
- 167) The pharmaceutical combination of any one of claims 163-166, comprising about 0.04% (w/v) PS-20.
- 168) The pharmaceutical combination of any one of claims 163-167, comprising about 1 mg/mL methionine.
- 169) The pharmaceutical combination of any one of claims 163-168, comprising
- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and

- f) about 1 mg/mL methionine, at a pH of about 5.6.
- 170) The pharmaceutical combination of any one of claims 164-169, comprising
 - a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 171) A kit comprising the pharmaceutical combination of any one of claims 155-171.
- 172) A method of treating a cancer in a subject, comprising administering a therapeutically effective amount of a T-cell redirecting therapeutic that binds CD19 and an anti-CD38 antibody to the subject to treat the cancer.
- 173) The method of claim 172, wherein the subject has been treated with an anti-CD38 antibody prior to administering the T-cell redirecting therapeutic that binds CD19.
- 174) A method of enhancing efficacy of a T cell redirecting therapeutic that binds CD19 in a subject having a cancer, comprising administering to the subject an anti-CD38 antibody prior to administering the T cell redirecting therapeutic that binds CD19.
- 175) The method of any one of claims 172-174, wherein the subject is refractory or relapsed to treatment with a prior anti-cancer therapeutic.
- 176) The method of any one of claims 172-175, wherein the cancer is a hematological malignancy or a solid tumor.
- 177) The method of claim 176, wherein the hematological malignancy is lymphoma, a B cell malignancy, Hodgkin's lymphoma, non-Hodgkin's lymphoma, a DLBCL, a FL, a MCL, a marginal zone B-cell lymphoma (MZL), a mucosa-associated lymphatic tissue lymphoma (MALT), a CLL, an ALL, an AML, Waldenstrom's Macroglobulinemia or a T-cell lymphoma.
- 178) The method of claim 176, where the solid tumor is a lung cancer, a liver cancer, a cervical cancer, a colon cancer, a breast cancer, an ovarian cancer, a pancreatic cancer, a melanoma, a glioblastoma, a prostate cancer, an esophageal cancer or a gastric cancer.
- 179) The method of any one of claims 172-178, wherein the T-cell redirecting therapeutic binds CD3 epsilon (CD3ε), CD8, KIL4, NKG2E, NKG2D, NKG2F, BTNL3, CD186, BTNL8, PD-1, CD195, or NKG2C.
- 180) The method of any one of claims 172-179, wherein the T-cell redirecting therapeutic that binds CD19 comprises a CD19 binding domain of blinatumomab, axicabtagene ciloleucel, tisagenlecleucel-t, inebilizumab, lisocabtagene maraleucel, XmAb-5574, CIK-CAR.CD19, ICTCAR-011, IM-19, JCAR-014, loncastuximab tesirine, MB-CART2019.1, OXS-1550,

- PBCAR-0191, PCAR-019, PCAR-119, Senl-001, TI-1007, XmAb-5871, PTG-01, PZ01, Senl_1904A, Senl_1904B, UCART-19, CSG-CD19, DI-B4, ET-190, GC-007F or GC-022.
- 181) The method of any one of claims 172-180, wherein the T cell redirecting therapeutic that binds CD19 comprises blinatumomab, axicabtagene ciloleucel, tisagenlecleucel-t, inebilizumab, lisocabtagene maraleucel, XmAb-5574, CIK-CAR.CD19, ICTCAR-011, IM-19, JCAR-014, loncastuximab tesirine, MB-CART2019.1, OXS-1550, PBCAR-0191, PCAR-019, PCAR-119, Senl-001, TI-1007, XmAb-5871, PTG-01, PZ01, Senl_1904A, Senl_1904B, UCART-19, CSG-CD19, DI-B4, ET-190, GC-007F or GC-022.
- 182) The method of any one of claims 172-181, wherein the T-cell redirecting therapeutic that binds CD19 is a multispecific antibody, a CAR or a T cell expressing the CAR.
- 183) The method of any one of claims 172-182, wherein the anti-CD38 antibody comprises the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 184) The method of any one of claims 172-183, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 185) The method of any one of claims 172-184, wherein the anti-CD38 antibody is an IgG1 isotype.
- 186) The method of any one of claims 172-185, wherein the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.
- 187) The method of any one of claims 172-182, wherein the anti-CD38 antibody comprises
- a) the VH of SEQ ID NO: 14 and the VL of SEQ ID NO: 15;
 - b) the VH of SEQ ID NO: 16 and the VL of SEQ ID NO: 17;
 - c) the VH of SEQ ID NO: 18 and the VL of SEQ ID NO: 19; or
 - d) the VH of SEQ ID NO: 20 and the VL of SEQ ID NO: 21.
- 188) The method of claim 187, wherein the anti-CD38 antibody is an IgG1 isotype.
- 189) The method of any one of claims 172-188, wherein the anti-CD38 antibody is administered at a dose of between about 8 mg/kg and about 16 mg/kg.
- 190) The method of any one of claims 172-189, wherein the T-cell redirecting therapeutic that binds CD19 and the anti-CD38 antibody are administered by an intravenous injection.
- 191) The method of any one of claims 172-189, wherein the T-cell redirecting therapeutic that binds CD19 is administered by an intravenous injection and the anti-CD38 antibody is administered by a subcutaneous injection.
- 192) The method of any one of claims 172-191, wherein the subject is a human.
- 193) The method of any one of claims 172-192, wherein the T cell redirecting therapeutic that binds CD19 is a CD19xCD3 bispecific antibody.

- 194) The method of any one of claims 172-193, further comprising administering to the subject one or more anti-cancer therapies.
- 195) The method of claim 194, wherein the one or more anti-cancer therapies is selected from the group consisting of an autologous stem cell transplant (ASCT), radiation, surgery, a chemotherapeutic agent, an immunomodulatory agent and a targeted cancer therapy.
- 196) A pharmaceutical combination comprising a CD19xCD3 bispecific antibody comprising blinatumomab of SEQ ID NO: 53 an anti-CD38 antibody comprising the HCDR1 of SEQ ID NO: 6, the HCDR2 of SEQ ID NO: 7, the HCDR3 of SEQ ID NO: 8, the LCDR1 of SEQ ID NO: 9, the LCDR2 of SEQ ID NO: 10 and the LCDR3 of SEQ ID NO: 11.
- 197) The pharmaceutical combination of claim 196, wherein the anti-CD38 antibody comprises the VH of SEQ ID NO: 4 and the VL of SEQ ID NO: 5.
- 198) The pharmaceutical combination of claim 197, wherein the anti-CD38 antibody comprises the HC of SEQ ID NO: 12 and the LC of SEQ ID NO: 13.
- 199) The pharmaceutical combination of any one of claims 196-198, which is a non-fixed combination.
- 200) The pharmaceutical combination of claim 199, comprising from about 20 mg/mL to about 120 mg/mL of the anti-CD38 antibody in about 25 mM acetic acid, about 60 mM sodium chloride, about 140 mannitol and about 0.04% w/v polysorbate-20 (PS-20); at pH about 5.5.
- 201) The pharmaceutical combination of claim 199, comprising about 1,800 mg of the anti-CD38 antibody and about 30,000 U of rHuPH20.
- 202) The pharmaceutical combination of claim 201, comprising about 120 mg/mL of the anti-CD38 antibody and about 2,000 U/mL of rHuPH20.
- 203) The pharmaceutical combination of claim 202, further comprising one or more excipients.
- 204) The pharmaceutical combination of claim 203, wherein the one or more excipients is histidine, methionine, sorbitol or polysorbate-20 (PS-20), or any combination thereof.
- 205) The pharmaceutical combination of claim 204, wherein the pharmaceutical combination comprises
- a) between about 100 mg/mL and about 120 mg/mL of the anti-CD38 antibody;
 - b) between about 5 mM and about 15 mM histidine;
 - c) between about 100 mM and about 300 mM sorbitol;
 - d) between about 0.01% w/v and about 0.04 % w/v PS-20; and
 - e) between about 1 mg/mL and about 2 mg/mL methionine, at a pH of about 5.5-5.6.
- 206) The pharmaceutical combination of claim 205, comprising about 10 mM histidine.

- 207) The pharmaceutical combination of claim 205 or 206, comprising about 300 mM sorbitol.
- 208) The pharmaceutical combination of any one of claims 205-207, comprising about 0.04% (w/v) PS-20.
- 209) The pharmaceutical combination of any one of claims 205-208, comprising about 1 mg/mL methionine.
- 210) The pharmaceutical combination of any one of claims 205-209, comprising
- a) about 1,800 mg of the anti-CD38 antibody;
 - b) about 30,000 U of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 211) The pharmaceutical composition of any one of claims 205-210, comprising
- a) about 120 mg/mL of the anti-CD38 antibody;
 - b) about 2,000 U/mL of rHuPH20;
 - c) about 10 mM histidine;
 - d) about 300 mM sorbitol;
 - e) about 0.04 % (w/v) PS-20; and
 - f) about 1 mg/mL methionine, at a pH of about 5.6.
- 212) A kit comprising the pharmaceutical composition of any one of claims 196-211.