What is claimed is:

1. An immunoconjugate capable of targeting CD138 expressing cells comprising:
(a) a targeting antibody against CD138 comprising
(i) an immunoglobulin heavy chain comprising a variable region comprising amino acid residues 31 to 35 (CDR1), 51 to 68 (CDR2) and 99 to 111 (CDR 3) of SEQ ID NO: 1, and
(ii) a light chain comprising a variable region comprising amino acid residues 24 to 34 (CDR1), 50 to 56 (CDR2) and 89 to 97 (CDR3) of SEQ ID NO: 2;
and
(b) an effector molecule ~~for inducing cell death~~,
wherein a constant region of said immunoglobulin heavy chain is an IgG4 isotype constant region,
and wherein the effector molecule is at least one maytansinoid.

2. The immunoconjugate of claim 1, wherein said effector molecule is attached to said targeting antibody via a linker.

3. The immunoconjugate of claim 2, wherein said linker is a cleavable linker, preferably comprising a disulfide bond.

4. The immunconjugate of claims 1, 2 or 3, wherein said effector molecule provides sterical hindrance between the targeting antibody and said effector molecule.

5. The immunoconjuage according to claim 1, wherein immunoconjugate has a K_D value of less than 2.6 nM.

~~6. The immunoconjugate of claim 1, wherein the effector molecule is at least one maytansinoid, taxane or a CC1065, or an analog thereof.~~

~~7. The immunconjugate of claim 6, wherein the effector molecule is at least one maytansinoid.~~

68. The immunconjugate of claim 17, wherein the at least one maytansinoid is DM1, DM3, or DM4.

97. The immunconjugate claim 4 wherein said effector molecule is DM4.

~~10. The immunoconjugate of claim 1, wherein said immunoconjugate binds CD138 with a targeting variation of less than 150%, 140%, 130%, 120%, 110%, 100%, 90%, 80%, 70%, 60% or 50%.~~

811. The immunoconjugate of any one of claims 1 to 710, wherein said targeting antibody further comprises:

(a) amino acid residues 123 to 448 of SEQ ID NO: 1, and/or

(b) amino acid residues 108 to 214 of SEQ ID NO: 2, respectively and mutations thereof that

(i) maintain or lower the antibody-dependent cytotoxicity and/or complement-dependent cytotoxicity of the engineered targeting antibody and/or

(ii) stabilize the engineered targeting antibody.

912. The immunoconjugate of any preceding claim, whereinsaid immunoglobulin heavy chain has at least 70% sequence identity with SEQ ID NO:1.

1013. The immunoconjugate of any preceding claim wherein the targeting antibody comprises an immunoglobulin heavy chain comprising SEQ ID NO: 1 and a light chain comprising SEQ ID NO: 2.

11. An immunoconjugate comprising:

(a) an engineered targeting antibody against CD138; and

(b) an effector molecule,

wherein said engineered targeting antibody comprises a heavy chain having SEQ ID NO: 1 and a light chain having SEQ ID NO: 2,

and wherein the effector molecule is DM4.

12. An immunoconjugate comprising:

(a) an engineered targeting antibody against CD138; and

(b) an effector molecule,

wherein said engineered targeting antibody comprises a heavy chain having SEQ ID NO: 1 and a light chain having SEQ ID NO: 2,

where in the effector molecule is DM4,

and wherein said effector molecule is attached to said engineered targeting antibody via a cleavable linker comprising a disulfide bond.

1314. An immunoconjugate according to any one of claims 1 to 123 for use in medicine.

1415. Use of an immunoconjugate of any one of claims 1 to 123 in the manufacture of a medicament for treating multiple myeloma in a subject.

1516. Use of an immunoconjugate of any one of claims 1 to 123 for the manufacture of a medicament for treating transitional cell bladder carcinoma in a subject.

16~~17~~. Use of an immunoconjugate of claims any one of claims 1 to 1~~2~~3 for the manufacture of a medicament for inhibiting, delaying and/or preventing the growth of a tumor comprising CD138 tumor cells and/or spread of tumor cells of such a tumor in a patient in need thereof.

17~~18~~. The use of claim 1~~6~~7, wherein said patient suffers from a hematologic malignancy and/or a solid tumor comprising CD138 expressing cells.

18~~19~~. The use of claim 1~~7~~8, wherein said patient suffers from one of the following: multiple myeloma, ovarian carcinoma, kidney carcinoma, gall bladder carcinoma, breast carcinoma, prostate cancer, lung cancer, colon carcinoma, Hodgkin's and non-Hodgkin's lymphoma, chronic lymphocytic leukemia (CLL), acute lymphoblastic leukemia (ALL), acute myeloblasts leukemia (AML), solid tissue sarcoma or colon carcinoma.

19~~20~~. The use of claim 1~~8~~9, wherein the disease is multiple myeloma.

~~21. The use of any one of claims 15 to 20, wherein said effector molecule of said immunoconjugate is a toxin, cytotoxic enzyme, low molecular weight cytotoxic drug, a pore-forming agent, biological response modifier, prodrug activating enzyme, an antibody, cytokine or a radionuclide.~~

20~~22~~. The use of any one of claims 1~~4~~5 to 19~~21~~, wherein said immunoconjugate is to be administered in a single dose of 5 mg/m^2 to about 300 mg/m^2.

21~~23~~. The use of any one of claims 1~~4~~5 to 19~~21~~, wherein said immunoconjugate is to be administered in at least two doses of about 5 mg/m^2 to about 300 mg/m^2, optionally at hourly, daily, weekly intervals or combinations thereof.

22~~24~~. Use of an immunoconjugate of any one of claims 1 to 1~~2~~3 for the manufacture of a medicament for inhibiting, delaying and/or preventing the growth of a tumor and/or spread of malignant tumor cells comprising CD138 expressing cells in a patient, wherein the patient has been treated with one or more cytotoxic agents and/or radiation in an amount to reduce tumor load.

23~~25~~. The use of claim 22~~24~~, wherein the immunoconjugate is to be administered consecutively with the one or more cytotoxic agents and/or radiation in two consecutive treatment regimes.

24~~26~~. The use of claim 22~~24~~, wherein the immunoconjugate is to be co-administered with the at least one cytotoxic agent.

25~~27~~. The use of any one of claims 22~~24~~ to 2~~4~~6 wherein the cytotoxic agent is melphalan, vincristine, doxorubicin, dexamethasone, cyclophosphamide, etoposide, cytarabine,

cisplatin, thalidomide, prednisone bortezomib, lenalidomide, sorafenib, romidepsin or combinations thereof.

2628. The use of any one of claims 2224 to 2426 wherein the cytotoxic agent is antibody based.

2729. Use of an immunoconjugate of any one of claims 1 to 1213 for the manufacture of a medicament for treating a subject having a condition that would benefit from the suppression of myeloma cell survival, wherein the immunoconjugate is capable of decreasing survival or growth of said myeloma cells of said subject.

2830. A pharmaceutical composition comprising the immunoconjugate of any one of claims 1 to 1213 and one or more pharmaceutical acceptable excipients, wherein the immunoconjugate is suitable for the inhibition, delay and/or prevention of the growth of tumors and/or spread of tumor cells,.

2931. The pharmaceutical composition of claim 2830 further comprising the at least one cytotoxic agent.

3032. The pharmaceutical composition of claim 2931, wherein the cytotoxic agent is melphalan, vincristine, doxorubicin, dexamethasone, cyclophosphamide, etoposide, cytarabine, cisplatin, thalidomide, prednisone bortezomib, lenalidomide, sorafenib, romidepsin or combinations thereof.

3133. The pharmaceutical composition of claim 2931, wherein the cytotoxic agent is antibody based.

3234. A kit comprising, in separate containers, pharmaceutical compositions for use in combination to inhibit, delay and/or prevent the growth of tumors and/or spread of tumor cells, wherein one container comprises an effective amount of the pharmaceutical composition of claim 2830, and wherein, a separate container comprises a second pharmaceutical composition comprising an effective amount of a further agent, preferably a cytotoxic agent, for the inhibition, delay and/or prevention of the growth of tumors and/or spread of tumor cells, and one or more pharmaceutical acceptable excipients.

3335. The kit of claim 3234, wherein said agent in said second pharmaceutical composition is a selected from the group consisting of melphalan, vincristine, doxorubicin, dexamethasone, cyclophosphamide, etoposide, cytarabine, cisplatin, thalidomide, prednisone bortezomib, lenalidomide sorafenib, romidepsin and combinations thereof or is antibody based.