

CLAIMS

1. A composition comprising a CD16+ cell or a NK (Natural Killer) cell in combination with a recombinant polypeptide capable of binding to the FcγRIII (CD16) surface protein, wherein the recombinant polypeptide is non-covalently bound to the FcγRIII (CD16) surface protein expressed by the CD16+ cell or the NK (Natural Killer) cell, and wherein said recombinant polypeptide comprises:
 - (i) a modified C_H2 domain of a wild-type human IgG1, bound, optionally through a linker, to
 - (ii) a ligand binding domain,
 wherein the ligand binding domain comprises a sequence capable of binding to a target ligand;
 wherein the modified C_H2 domain is characterized by comprising mutations S239D and I332E with respect to the C_H2 domain of a wild-type human IgG1, and wherein said C_H2 domain of a wild-type human IgG1 is represented by SEQ ID NO 1, or by a sequence with a percentage of identity of at least 85% with the amino acid sequence SEQ ID NO. 1, and comprises sequence positions 231-340, according to the EU numbering~~7~~.
2. The composition of claim 1, wherein the modified C_H2 domain is modified with respect to the C_H2 domain of the wild-type human IgG1 represented by SEQ ID NO 1.
3. The composition of claim 1, wherein the FcγRIII (CD16) surface protein is FcγRIIIa/CD16a surface protein.
4. The composition of claim 2, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T, G236A and A330L with respect to the C_H2 domain of a wild-type human IgG1.
5. The composition of claim 2, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T and A330L with respect to the C_H2 domain of a wild-type human IgG1.
6. The composition of claim 2, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F and S324T with respect to the C_H2 domain of a wild-type human IgG1.
7. The composition of claim 6, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.
8. The composition of claim 6, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and H268F, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.
9. The composition of claim 5, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and A330L, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.

10. The composition of claim 6, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E, H268F and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.
- 5 11. The composition of claim 2 or 3, wherein the modification of the C_H2 domain with respect to the C_H2 domain of a wild-type human IgG1 consists of mutations S239D and I332E.
12. The composition of any of claims 1 to 11, wherein the CD16+ cell is allogeneic with respect to an individual in need thereof.
- 10 13. The composition of any of claims 1 to 12, where the recombinant polypeptide is an antibody and the modification in the C_H2 domain is symmetrical, or asymmetrical, with respect to the pair of C_H2 domains (or the pair of heavy chains) constituting the antibody.
- 15 14. The composition of any of claims 1 to 13, wherein the recombinant polypeptide comprises a human IgG1 Fc (fragment crystallizable) region comprising the modified C_H2 domain.
15. The composition according to any of claims 1 to 14, wherein the recombinant polypeptide is an antibody or a fragment thereof comprising the modified C_H2 domain as defined in any of claims 1 to 6 or the Fc region as defined in claim 14 and a ligand binding domain selected from the ligand binding domain of any of the following antibodies: Abagovomab, Abatacept, Abciximab, Abituzumab, Abrilumab, Actoxumab, Adalimumab, Adecatumab, Aducanumab, Aflibercept, Afutuzymab, Alacizumab, Alefacept, Alemtuzumab, Alirocumab, Altumomab, Amatixumab, Anatumomab, Anetumab, Anifromumab, Anrukinzumab, Apolizumab, Arcitumomab, Ascrinvacumab, Aselizumab, Atezolizumab, Atinumab, Altizumab, Atorolimumab, Bapineuzumab, Basiliximab, Bavituximab, Bectumomab, Begelomab, Belatacept, Belimumab, Benralizumab, Bertilimumab, Besilesomab, Bevacizumab, Bezlotoxumab, Biciromab, Bimagrumab, Bimekizumab, Bivatuzumab, Blinatumomab, Blosozumab, Bococizumab, Brentuximab, Briakimumab, Brodalumab, Brolucizumab, Bronticizumab, Canakinumab, Cantuzumab, Caplacizumab, Capromab, Carlumab, Catumaxomab, Cedelizumab, Certolizumab, Cetixumab, Citatuzumab, Cixutumumab, Clazakizumab, Clenoliximab, Clivatuzumab, Codrituzumab, Coltuximab, Conatumumab, Concizumab, Crenezumab, Dacetuzumab, Daclizumab, Dalotuzumab, Dapirolizumab, Daratumumab, Dectrekumab, Demcizumab, Denintuzumab, Denosumab, Derlotixumab, Detumomab, Dinutuximab, Diridavumab, Dorlinomab, Drozitumab, Dupilumab, Durvalumab, Dusigitumab, Ecomeximab, Eculizumab, Edobacomab, Edrecolomab, Efalizumab, Efungumab, Eldelumab, Elgantumab, Elotuzumab, Elsilimomab, Emactuzumab, Emibetuzumab, Enavatuzumab, Enfortumab, Enlimomab, Enoblituzumab, Enokizumab, Enoticumab, Ensituximab, Epitumomab, Epratuzomab, Erlizumab, Ertumaxomab, Etanercept, Etaracizumab, Etrolizumab, Evinacumab, Evolocumab, Exbivirumab, Fanolesomab, Faralimumab, Farletuzomab, Fasimumab, Felvizumab, Fezkimumab, Ficlaturumab, Figitumumab, Firivumab, Flanvotumab, Fletikumab, Fontolizumab, Foralumab, Foravirumab, Fresolimumab, Fulramumab, Futuximab, Galiximab, Ganitumab, Gantenerumab, Gavilimumab, Gemtuzumab, Gevokizumab, Girentuximab, Glembatumumab, Golimumab, Gomaliximab, Guselkumab, Ibalizumab, Ibritumomab, Icrucumab, Idarucizumab, Igovomab, Imalumab, Imciromab, Imgatuzumab, Inclacumab, Indatuximab, Indusatumab, Infliximab, Intetumumab, Inolimomab, Inotuzumab, Ipilimumab, Iratumumab, Isatuximab, Itolizumab, Ixekizumab, Keliximab, Labetuzumab, Lambrolizumab, Lampalizumab, Lebrikizumab, Lemalesomab, Lenzilumab, Lerdelimumab, Lexatumumab, Libivirumab, Lifestuzumab, Ligelizumab, Lilotomab, Lintuzumab, Lirilumab, Lodelcizumab, Lokivetmab, Lorvotuzumab, Lucatumumab, Lulizumab, Lumiliximab, Lumretuzumab, Mapatumumab, Margetuximab, Maslimomab, Mavrilimumab, Matuzumab, Mepolizumab, Metelimumab, Milatuzumab, Minetumomab, Mirvetuximab, Mitumomab, Mogamulizumab, Morolimumab, Motavizumab,

Moxetumomab, Muromonab-CD3, Nacolomab, Namilumab, Naptumomab, Narnatumab, Natalizumab, Nebacumab, Necitumumab, Nemolizumab, Nerelimomab, Nesvacumab, Nimotuzumab, Nivolumab, Nofetumomab, Obiltoxaximab, Obinutuzumab, Ocaratuzumab, Ocrelizumab, Odulimomab, Ofatumumab, Olaratumab, Olokizumab, Omalizumab, Onartuzumab, 5 Ontuxizumab, Opicinumab, Oportuzumab, Oregovomab, Orticumab, Otelixizumab, Oltertuzumab, Oxelumab, Ozanezumab, Ozoralizumab, Pagibaximab, Palivizumab, Panitumumab, Pankomab, Panobacumab, Parsatuzumab, Pascolizumab, Pasotuxizumab, Pateclizumab, Patritumab, Pembrolizumab, Pemtumomab, Perakizumab, Pertuzumab, Pexelizumab, Pidilizumab, Pinatuzumab, Pintumomab, Polatuzumab, Ponezumab, Priliximab, Pritumumab, Quilizumab, Racotumomab, 10 Radretumab, Rafivirumab, Ralpancizumab, Ramucirumab, Ranibizumab, Raxibacumab, Refanezumab, Regavirumab, Reslizumab, Rilonacept, Rilotumumab, Rinucumab, Rituximab, Robatumumab, Roledumab, Romosozumab, Rontalizumab, Rovelizumab, Ruplizumab, Sacituzumab, Samalizumab, Sarilumab, Satumomab, Secukimumab, Seribantumab, Setoxaximab, Sevirumab, Sibrotuzumab, Sifalimumab, Siltuximab, Siplizumab, Sirukumab, Sofituzumab, 15 Solanezumab, Solitomab, Sonepcizumab, Sontuzumab, Stamulumab, Sulesomab, Suvizumab, Tabalumab, Tacatuzumab, Tadocizumab, Talizumab, Tanezumab, Taplitumomab, Tarextumab, Tefibazumab, Telimomab aritox, Tenatumomab, Teneliximab, Teplizumab, Tesidolumab, TGN 1412, Ticlimumab, Tildrakizumab, Tigatuzumab, TNX-650, Tocilizumab, Toralizumab, Tosatoxumab, Tositumomab, Tovetumab, Tralokimumab, Trastuzumab, TRBS07, Tregalizumab, 20 Tremelimumab, Trevogrumab, Tucotuzumab, Tuvirumab, Ublituximab, Ulocuplumab, Urelumab, Urtoxazumab, Ustekimumab, Vandortuzumab, Vantictumab, Vanucizumab, Vapaliximab, Varlimumab, Vatelizumab, Vedolizumab, Veltuzumab, Vepalimomab, Vesencumab, Visilizumab, Volocixumab, Vorsetuzumab, Votumumab, Zalutumimab, Zanolimumab, Zatuximab, Ziralimumab, Ziv-Aflibercept, and Zolimomab.

25 16. Use of Tthe composition according to any of claims 1 to 15, ~~for use~~ as a medicament, preferably for use in a method for treating or preventing a cancer, an autoimmune disease, or an infectious disease in an individual in need thereof.

30 17. A pharmaceutical composition comprising the composition according to any of claims 1 to ~~16~~15, optionally further comprising an excipient or a pharmacologically acceptable vehicle.

35 18. Use of Tthe composition according to any of claims 1 to ~~16~~15 or a pharmaceutical composition according to claim 17, wherein the CD16+ cell or the NK (Natural Killer) cell is allogeneic with respect to an individual in need thereof, ~~for use~~ as a medicament, preferably for use in a method for treating or preventing a cancer, an autoimmune disease, or an infectious disease in an individual in need thereof.

40 ~~19. A composition comprising a NK (Natural Killer) cell in combination with a recombinant polypeptide capable of binding to the FcγRIII (CD16) surface protein, wherein the recombinant polypeptide is non covalently bound to the FcγRIII (CD16) surface protein expressed by the NK (Natural Killer) cell, and wherein said recombinant polypeptide comprises:~~

45 ~~(i) a modified C_H2 domain of a wild type human IgG1, bound, optionally through a linker, to~~
~~(ii) a ligand binding domain;~~

~~wherein the ligand binding domain comprises a sequence capable of binding to a target ligand;~~

50 ~~wherein the modified C_H2 domain is characterized by comprising mutations S239D and I332E with respect to the C_H2 domain of a wild type human IgG1, and wherein said C_H2~~

domain of a wild-type human IgG1 is represented by SEQ ID NO. 1, or by a sequence with a percentage of identity of at least 85% with the amino acid sequence SEQ ID NO. 1, and comprises sequence positions 231-340, according to the EU numbering;

- 5 20. ~~—The composition of claim 19, wherein the modified C_H2 domain is modified with respect to the C_H2 domain of the wild-type human IgG1 represented by SEQ ID NO 1.~~
- 10 21. ~~—The composition of claim 20, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T, G236A and A330L with respect to the C_H2 domain of a wild-type human IgG1.~~
- 15 22. ~~—The composition of claim 20, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T and A330L with respect to the C_H2 domain of a wild-type human IgG1.~~
- 20 23. ~~—The composition of claim 20, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F and S324T with respect to the C_H2 domain of a wild-type human IgG1.~~
- 25 24. ~~—The composition of claim 23, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~
- 30 25. ~~—The composition of claim 23, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and H268F, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~
- 35 26. ~~—The composition of claim 22, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and A330L, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~
- 40 27. ~~—The composition of claim 23, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E, H268F and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~
- 45 28. ~~—The composition of claim 20, wherein the modification of the C_H2 domain with respect to the C_H2 domain of a wild-type human IgG1 consists of mutations S239D and I332E.~~
- 50 29. ~~—The composition of any of claims 19 to 28, wherein the CD16 cell is allogeneic with respect to an individual in need thereof.~~
30. ~~—The composition of any of claims 19 to 29, where the recombinant polypeptide is an antibody and the modification in the C_H2 domain is symmetrical, or asymmetrical, with respect to the pair of CH2 domains (or the pair of heavy chains) constituting the antibody.~~
31. ~~—The composition of any of claims 19 to 30, wherein the recombinant polypeptide comprises a human IgG1 Fc (fragment crystallizable) region comprising the modified C_H2 domain.~~
32. ~~—The composition according to any of claims 19 to 31, wherein the recombinant polypeptide is an antibody or a fragment thereof comprising the C_H2 domain as defined in any of claims 19 to 31 and a ligand binding domain selected from the ligand binding domain of any of the following~~

antibodies: Abagovomab, Abatacept, Abciximab, Abituzumab, Abrilumab, Actoxumab, Adalimumab, Adecatumab, Aducanumab, Aflibercept, Afutuzymab, Alacizumab, Alefacept, Alemtuzumab, Alirocumab, Altumomab, Amatixumab, Anatomomab, Anetumab, Anifromumab, Anrukizumab, Apolizumab, Arcitumomab, Aserinvacumab, Aselizumab, Atezolizumab, Atinumab, Altizumab, Atorolimomab, Bapineuzumab, Basiliximab, Bavituximab, Bectumomab, Begelomab, Belatacept, Belimumab, Benralizumab, Bertilimumab, Besilesomab, Bevacizumab, Bezlotoxumab, Biciromab, Bimagrumab, Bimekizumab, Bivatuzumab, Blinatumomab, Blosozumab, Bococizumab, Brentuximab, Briakimumab, Brodalumab, Brolucizumab, Bronticizumab, Canakinumab, Cantuzumab, Caplacizumab, Capromab, Carlumab, Catumaxomab, Cedelizumab, Certolizumab, Cetixumab, Citatuzumab, Cixutumumab, Clazakizumab, Clenoliximab, Clivatuzumab, Codrituzumab, Coltuximab, Conatumumab, Concizumab, Crenezumab, Dacetuzumab, Daelizumab, Dalotuzumab, Dapirolizumab, Daratumumab, Dectrekumab, Demeizumab, Denintuzumab, Denosumab, Derlotixumab, Detumomab, Dinutuximab, Diridavumab, Dorlinomab, Drozitumab, Dupilumab, Durvalumab, Dusigitumab, Ecomeximab, Eculizumab, Edobacomab, Edrecolomab, Efalizumab, Efungumab, Eldelumab, Elgemtumab, Elotuzumab, Elsilimomab, Emaetuzumab, Emibetuzumab, Enavatumab, Enfortumab, Enlimomab, Enoblituzumab, Enokizumab, Enoticumab, Ensituximab, Epitumomab, Epratuzomab, Erlizumab, Ertumaxomab, Etanerecept, Etaracizumab, Etrolizumab, Evinacumab, Evolocumab, Exbivirumab, Fanolesomab, Faralimomab, Farletuzomab, Fasimumab, Felvizumab, Fezkinumab, Ficlaturumab, Figitumumab, Firivumab, Flanvotumab, Fletikumab, Fontolizumab, Foralumab, Foravirumab, Fresolimomab, Fulramumab, Futuximab, Galiximab, Ganitumab, Gantenerumab, Gavilimomab, Gemtuzumab, Gevokizumab, Girentuximab, Glembatumumab, Golimumab, Gomiliximab, Guselkumab, Ibalizumab, Ibritumomab, Ierucumab, Idarucizumab, Igovomab, Imalumab, Imciromab, Imgatuzumab, Inclacumab, Indatuximab, Indusatumab, Infliximab, Intetumumab, Inolimomab, Inotuzumab, Ipilimumab, Iratumumab, Isatuximab, Itolizumab, Ixekizumab, Keliximab, Labetuzumab, Lambrolizumab, Lampalizumab, Lebrikizumab, Lemalesomab, Lenzilumab, Lerdelimomab, Lexatumumab, Libivirumab, Lifestuzumab, Ligelizumab, Lilotomab, Lintuzumab, Lirilumab, Lodeleizumab, Lokivetmab, Lorvotuzumab, Lucatumumab, Lulizumab, Lumiliximab, Lumretuzumab, Mapatumumab, Margetuximab, Maslimomab, Mavrilimumab, Matuzumab, Mepolizumab, Metelimomab, Milatuzumab, Minetumomab, Mirvetuximab, Mitumomab, Mogamulizumab, Morolimomab, Motavizumab, Moxetumomab, Muromonab-CD3, Nacolumab, Namilumab, Naptumomab, Narnatumab, Natalizumab, Nebacumab, Necitumumab, Nemolizumab, Nerelimomab, Nesvacumab, Nimotuzumab, Nivolumab, Nofetumomab, Obiltoxaximab, Obinutuzumab, Ocaratuzumab, Ocelizumab, Odulimomab, Ofatumumab, Olaratumab, Olokizumab, Omalizumab, Onartuzumab, Ontuxizumab, Opicinumab, Oportuzumab, Oregovomab, Orticumab, Otelixizumab, Oltertuzumab, Oxelumab, Ozanezumab, Ozoralizumab, Pagibaximab, Palivizumab, Panitumumab, Pankomab, Panobacumab, Parsatuzumab, Pascelizumab, Pasotuxizumab, Pateelizumab, Patritumab, Pembrolizumab, Pentumomab, Perakizumab, Pertuzumab, Pexelizumab, Pidilizumab, Pinatuzumab, Pintumomab, Polatuzumab, Ponezumab, Priliximab, Pritumumab, Quilizumab, Racotumomab, Radretumab, Rafivirumab, Ralpancizumab, Ramucirumab, Ranibizumab, Raxibacumab, Refanezumab, Regavirumab, Reslizumab, Rilonacept, Rilotumumab, Rinucumab, Rituximab, Robatumumab, Roledumab, Romosozumab, Rontalizumab, Rovelizumab, Ruplizumab, Sacituzumab, Samalizumab, Sarilumab, Satumomab, Secukimumab, Seribantumab, Setoxaximab, Sevirumab, Sibrotuzumab, Sifalimumab, Siltuximab, Siplizumab, Sirukumab, Sofituzumab, Solanezumab, Solitumab, Sonepeizumab, Sontuzumab, Stamulumab, Sulesomab, Suvizumab, Tabalumab, Tacatuzumab, Tadocizumab, Talizumab, Tanezumab, Taplitumomab, Tarextumab, Tefibazumab, Telimomab-aritox, Tenatumomab, Teneliximab, Teplizumab, Tesidolumab, TGN-1412, Ticlimumab, Tildrakizumab, Tigatuzumab, TNX-650, Tocilizumab, Toralizumab, Tosatoxumab, Tositumomab, Tovetumab, Tralokimumab, Trastuzumab, TRBS07, Tregalizumab, Tremelimomab, Trevogrumab, Tucotuzumab, Tuvirumab, Ublituximab, Ulocuplumab, Urelumab, Urtioxazumab, Ustekimumab, Vandortuzumab, Vantictumab, Vanucizumab, Vapaliximab,

~~Varlimumab, Vatelizumab, Vedolizumab, Veltuzumab, Vepalimomab, Vesencumab, Visilizumab, Volocixumab, Vorsetuzumab, Votumumab, Zalutumimab, Zanolimumab, Zatuximab, Ziralimumab, Ziv-Aflibercept, and Zolimomab.~~

5 ~~33.— A composition according to any of claims 19 to 32, for use as a medicament, preferably for use in a method for treating or preventing a cancer, an autoimmune disease, or an infectious disease in an individual in need thereof.~~

10 ~~34.— A pharmaceutical composition comprising the composition according to any of claims 19 to 32, optionally further comprising an excipient or a pharmacologically acceptable vehicle.~~

15 ~~35.— A composition according to any of claims 19 to 32 or a pharmaceutical composition according to claim 34 wherein the CD16 cell is allogeneic with respect to an individual in need thereof, for use as a medicament; preferably for use in a method for treating or preventing a cancer, an autoimmune disease, or an infectious disease in an individual in need thereof.~~

20 ~~36.— Pharmaceutical composition comprising a NK (Natural Killer) cell, in combination with a recombinant polypeptide; wherein said recombinant polypeptide comprises (i) a modified Fc (fragment crystallizable) region, and (ii) a ligand binding domain, said Fc region being capable of binding to said NK cell and comprising at least one modified C_H2 domain of a wild-type human IgG1, wherein the modified C_H2 domain is characterized by comprising mutations S239D and I332E with respect to the C_H2 domain of a wild-type human IgG1, and wherein said C_H2 domain of a wild-type human IgG1 is represented by SEQ ID NO 1, or by a sequence with a percentage of identity of at least 85% with the amino acid sequence SEQ ID NO. 1, and comprises sequence positions 231-~~
 25 ~~340, according to the EU numbering;~~

37.— ~~The pharmaceutical composition of claim 36, wherein the modified C_H2 domain is modified with respect to the C_H2 domain of the wild-type human IgG1 represented by SEQ ID NO 1.~~

30 ~~38.— The pharmaceutical composition of claim 36, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T, G236A and A330L with respect to the C_H2 domain of a wild-type human IgG1.~~

35 ~~39.— The pharmaceutical composition of claim 36, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F, S324T and A330L with respect to the C_H2 domain of a wild-type human IgG1.~~

40 ~~40.— The pharmaceutical composition of claim 36, wherein the modified C_H2 domain comprises at least one additional mutation selected from the list consisting of H268F and S324T with respect to the C_H2 domain of a wild-type human IgG1.~~

45 ~~41.— The pharmaceutical composition of claim 40, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~

42.— ~~The pharmaceutical composition of claim 40, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and H268F, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~

50 ~~43.— The pharmaceutical composition of claim 39, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E and A330L, according to EU numbering, with respect to the~~

~~C_H2 domain of a wild-type human IgG1.~~

44. ~~— The pharmaceutical composition of claim 40, wherein the modified C_H2 domain comprises amino acid substitutions S239D, I332E, H268F and S324T, according to EU numbering, with respect to the C_H2 domain of a wild-type human IgG1.~~

45. ~~— The pharmaceutical composition of claim 37, wherein the modification of the C_H2 domain with respect to the C_H2 domain of a wild-type human IgG1 consists of mutations S239D and I332E.~~

46. ~~— The pharmaceutical composition according to any of claims 36 to 45, further comprising an excipient or a pharmacologically acceptable vehicle.~~

47. ~~— The pharmaceutical composition according to any of claims 36 to 46; for use as a medicament.~~

48.19. A NK cell allogeneic with respect to an individual in need thereof attached to a recombinant polypeptide, wherein said recombinant polypeptide comprises (i) a modified Fc (fragment crystallizable) region, and (ii) a binding domain, said Fc region being capable of binding to said NK cell and comprising at least one modified C_H2 domain of a wild-type human IgG1 as defined in any of claims ~~36-1 to 2 or 4~~ to ~~45~~11; for use as a medicament.

49.20. A kit comprising:

- a first part comprising a CD16+ cell or a NK cell, preferably a CD16+ cell or a NK cell allogeneic with respect to an individual in need thereof; and

- a second part comprising a recombinant polypeptide as defined in any of claims 1 to 15; for use as a medicament.

50. ~~— A kit comprising:~~

~~— a first part comprising a NK cell, preferably a NK cell allogeneic with respect to an individual in need thereof; and~~

~~— a second part comprising a recombinant polypeptide as defined in any of claims 19 to 32; for use as a medicament.~~

51. ~~— Kit comprising:~~

~~— a first part including an NK cell, preferably an NK cell allogeneic with respect to an individual in need thereof; and~~

~~— a second part including a recombinant polypeptide comprising (i) a modified Fc (fragment crystallizable) region, and (ii) a ligand binding domain; said Fc region being capable of binding to said NK cell and comprising at least one modified C_H2 domain of a wild-type human IgG1 as defined in any of claims 36 to 45; for use as a medicament.~~

52. ~~— Pharmaceutical composition comprising a CD16+ cell, in combination with a recombinant polypeptide; wherein said recombinant polypeptide comprises (i) a modified Fc (fragment crystallizable) region on the amino acid sequence of the Fc region, and (ii) a ligand binding domain, said Fc region being capable of binding to said CD16+ cell, and further comprising an excipient or a~~

~~pharmacologically acceptable vehicle.~~

~~53. The pharmaceutical composition of claim 52, wherein the recombinant polypeptide is non-covalently bound to the CD16+ cell.~~

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~~54. Pharmaceutical composition comprising a NK (Natural Killer) cell or a NK cell precursor, in combination with a recombinant polypeptide; wherein said recombinant polypeptide comprises (i) a modified Fc (fragment crystallizable) region on the amino acid sequence of the Fc region, and (ii) a ligand binding domain, said Fc region being capable of binding to said NK cell or precursor thereof, and further comprising an excipient or a pharmacologically acceptable vehicle.~~

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~~55. The pharmaceutical composition of claim 54, wherein the recombinant polypeptide is non-covalently bound to the NK cell.~~