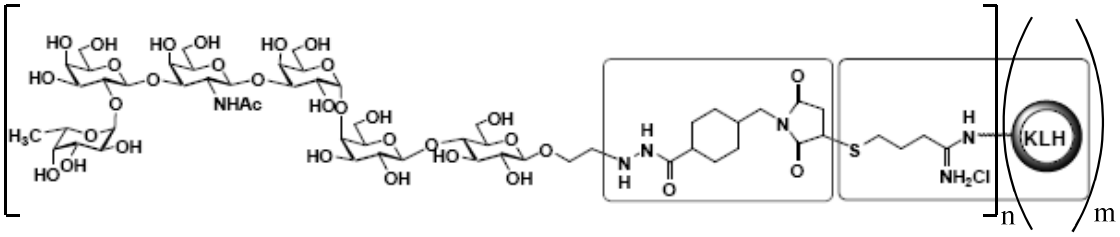
## CLAIMS

~~What is claimed is:~~

1. A compound comprising the structure:




wherein

n independently is an integer from ~~about~~ 1 to ~~about 800~~750,

m is independently an integer from ~~about~~ 1 to ~~about~~ 5, and

wherein for said compound, each of ~~the~~ Globo H moieties as shown in the structure ~~are~~is covalently bound via a linker to ~~the~~a basic amino acid residue on a KLH moiety~~(ies) on basic amino acid residues~~, and wherein the compound has an epitope ratio ranging from 25 to 150.

2. The compound of claim 1, wherein m is 1 and n is from ~~about~~ 1 to ~~about~~ 150.

3. The compound of claim 1, wherein m is 2 and n is from ~~about~~ 1 to ~~about~~ 300.

4. The compound of claim 1, wherein m is 3 and n is from ~~about~~ 1 to ~~about~~ 450.

5. The compound of claim 1, wherein m is 4 and n is from ~~about~~ 1 to ~~about~~ 600.

6. The compound of claim 1, wherein m is 5 and n is from ~~about~~ 1 to ~~about~~ 750.

~~7. The compound of claim 1, wherein n is from about 60 to about 100.~~

~~8. The compound of claim 1, wherein n is from about 70 to about 90.~~

~~9. The compound of claim 1, wherein n is from about 75 to about 80.~~

~~10.~~7. The compound of claim 1, wherein n is ~~about~~ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, or 150~~, 151, 152, 153, 154, 155, 156, 157, 158, 159, or 160~~.

~~11. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moieties, wherein the ratio of the number of Globo H moieties to KLH moieties is from about 1:1 to about 150:1 expressed as the number of Globo H molecules to one monomeric KLH moiety.~~

~~12. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to one keyhole limpet hemocyanin (KLH) moiety, wherein the number of Globo H moieties is from about 1 to about 150, expressed as the number of Globo H molecules to one monomeric KLH moiety.~~

~~13. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to two keyhole limpet hemocyanin (KLH) moieties, wherein the number of Globo H moieties is from about 1 to about 300, expressed as the number of Globo H molecules to a dimeric KLH moiety.~~

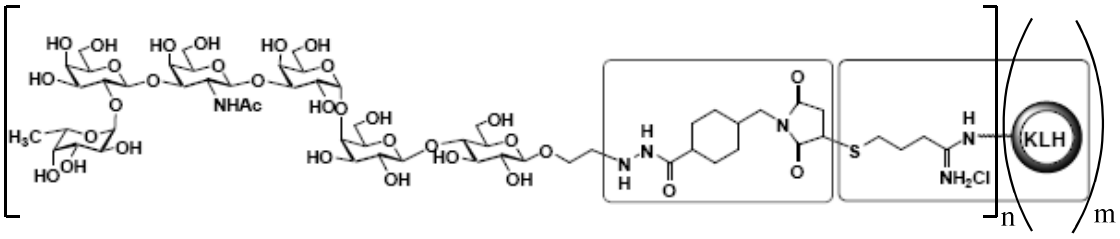
~~14. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to three keyhole limpet hemocyanin (KLH) moieties, wherein the number of Globo H~~

~~moieties is from about 1 to about 450, expressed as the number of Globo H molecules to a trimeric KLH moiety.~~

~~15. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to four keyhole limpet hemocyanin (KLH) moieties, wherein the number of Globo H moieties is from about 1 to about 600, expressed as the number of Globo H molecules to a tetrameric KLH moiety.~~

~~16.~~8. A therapeutic composition comprising a plurality of Globo H moieties covalently linked to from one to five keyhole limpet hemocyanin (KLH) moieties, wherein the number of Globo H moieties is from ~~about~~ 1 to ~~about~~ 750, and wherein the composition has an epitope ratio ranging from 25 to 150~~expressed as the number of Globo H molecules to a pentameric KLH moiety~~.

~~17.~~9. A pharmaceutical composition comprising: a compound comprising the structure:




wherein n independently is an integer from ~~about~~ 1 to ~~about~~ 750, ~~and~~ wherein m is independently an integer from ~~about~~ 1 to ~~about~~ 5, wherein the compound has an epitope ratio ranging from 25 to 150, and optionally a pharmaceutically acceptable carrier.

~~18.~~10. The pharmaceutical composition of claim ~~17~~9, wherein m is 1 and n is from ~~about~~ 1 to ~~about~~ 150.

~~19.~~11. The pharmaceutical composition of claim ~~17~~9, wherein m is 2 and n is from ~~about~~ 1 to ~~about~~ 300.

~~20.~~12. The pharmaceutical composition of claim ~~17~~9, wherein m is 3 and n is from ~~about~~ 1 to ~~about 50~~450.

~~21.~~13. The pharmaceutical composition of claim ~~17~~9, wherein m is 4 and n is from ~~about~~ 1 to ~~about~~ 600.

~~22.~~14. The pharmaceutical composition of claim ~~17~~9, wherein m is 5 and n is from ~~about~~ 1 to ~~about~~ 750.

~~23. The compound of claim 17, wherein n is from about 60 to about 100.~~

~~24. The compound of claim 17, wherein n is from about 70 to about 90.~~

~~25. The compound of claim 17, wherein n is from about 75 to about 80.~~

~~26. The compound of claim 17, wherein n is about 62, 66, 67, 68, 70, 72, 76, 86, 87, 88, 90, 92, 93 or 100.~~

~~27.~~15. A pharmaceutical composition comprising a therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one ~~or more~~to five keyhole limpet hemocyanin (KLH) moiety subunits, wherein the ~~number of Globo H moieties to KLH moiety subunits is from about 1:1 to about 150:1~~ conjugate has an epitope ratio ranging from 25 to 150.

~~28. A pharmaceutical composition comprising an therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moiety subunit, wherein the KLH moieties exist as monomers, dimers, trimers, tetramers, and pentamers.~~

~~29. A pharmaceutical composition comprising an therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moiety subunit, wherein the number of Globo H moieties to KLH moiety subunits is from about 1:1 to about 300:1, expressed as the number of Globo H molecules to a dimeric KLH moiety.~~

~~30. A pharmaceutical composition comprising an isolated therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moiety subunit, wherein the number of Globo H moieties to KLH moiety subunits is from about 1:1 to about 450:1, expressed as the number of Globo H molecules to one trimeric KLH moiety.~~

~~31. A pharmaceutical composition comprising an isolated therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moiety subunit, wherein the number of Globo H moieties to KLH moiety subunits is from about 1:1 to about 600:1, expressed as the number of Globo H molecules to one tetrameric KLH moiety.~~

~~32. A pharmaceutical composition comprising an isolated therapeutic conjugate comprising a plurality of Globo H moieties covalently linked to one or more keyhole limpet hemocyanin (KLH) moiety subunit, wherein the number of Globo H moieties to KLH moiety subunits, expressed as the number of Globo H molecules versus one pentameric KLH is from about 10:1 to about 750:1, expressed as the number of Globo H molecules to one pentameric KLH moiety.~~

~~33. A pharmaceutical composition comprising monomers, dimers, trimers, tetramers or pentamers or combinations thereof of KLH moiety, wherein each KLH moiety comprises one or more Globo H moieties covalently linked to a KLH moiety.~~

~~34. The pharmaceutical composition of claim 33, wherein about 1% to about 99% of the therapeutic conjugates in the composition are monomers.~~

~~35. The pharmaceutical composition of claim 33, wherein about 1% to about 99% of the therapeutic conjugates in the composition are dimers.~~

~~36. The pharmaceutical composition of claim 33, wherein about 1% to about 99% of the therapeutic conjugates in the composition are trimers.~~

~~37. The pharmaceutical composition of claim 33, wherein about 1% to about 99% of the therapeutic conjugates in the composition are tetramers.~~

~~38. The pharmaceutical composition of claim 33, wherein about 1% to about 99% of the therapeutic conjugates in the composition are pentamers.~~

~~39.~~16. A pharmaceutical composition comprising a plurality of Globo H moieties covalently linked to one or more KLH moiety subunit, wherein ~~about~~ 1% to 99% of the KLH moieties in the composition are monomers, dimers, trimers, tetramers, pentamers, or combinations thereof, and wherein the pharmaceutical composition has an epitope ratio ranging from 25 to 150.

~~40.~~17. The pharmaceutical composition of claim ~~33~~16 further comprising an adjuvant, wherein the adjuvant is complete and incomplete Freund's adjuvant, Toll-Like Receptor molecules, LPS, lipoproteins, lipopeptides, flagellin, double-stranded RNA, viral DNA, unmethylated CpG islands, levamisole, bacillus Calmette-Guerin, Isoprinosine, Zadaxin, PD-1 antagonists, PD-1 antibodies, CTLA antagonists, CTLA antibodies, interleukin,

cytokines, GM-CSF, glycolipid, aluminum salt based, aluminum phosphate, alum, aluminum hydroxide, liposomes, TLR2 agonists, lipopeptide, nanoparticles, monophosphoryl lipid A, an OPT-821 saponin, oil in water nano-emulsions, and bacteria-like particle.

41.18. The pharmaceutical composition of claim 3316 further comprising a cytokine selected from the group consisting of IL-2, IL-12, IL-18, IL-2, IFN-γ, TNF, IL-4, IL-10, IL-13, IL-21, GM-CSF and TGF-β.

42.19. The pharmaceutical composition of claim 3316 further comprising a chemokine.

43.20. The pharmaceutical composition of claim 3316 further comprising an agent selected from the group consisting of hormonal therapeutic agents (e.g.,comprising selective estrogen receptor modulators, or androgen receptor modulators), monoclonal antibody therapy, chemotherapy, retinoid receptor modulators, cytotoxic/cytostatic agents, antineoplastic agents, antiproliferative agents, prenyl-protein transferase inhibitors, HMG-CoA reductase inhibitors, nitrogen mustards, nitroso ureas, angiogenesis inhibitors (e.g.,comprising bevacizumab), inhibitors of cell proliferation and survival signaling pathway, apoptosis inducing agents, agents that interfere with cell cycle checkpoints, agents that interfere with receptor tyrosine kinases (RTKs), mammalian target of rapamycin (mTOR) inhibitors, human epidermal growth factor receptor 2 (HER2) inhibitors, epidermal growth factor receptor (EGFR) inhibitors, integrin blockers, NSAIDs, PPAR agonists, inhibitors of inherent multidrug resistance (MDR), anti-emetic agents, agents useful in the treatment of anemia, agents useful in the treatment of neutropenia, immunologic-enhancing drugs, biphosphonates, aromatase inhibitors, agents inducing terminal differentiation of neoplastic cells, γ-secretase inhibitors, cancer

vaccines, PD-1/PD-L1 inhibitors ~~(cytotoxic T cell lymphocyte (CTLs) immunotherapy)~~, CTLA-4 immunotherapy, CDK4/6 inhibitors ~~(target therapy)~~, PI3K inhibitors ~~(target therapy)~~, mTOR inhibitors ~~(target therapy)~~, AKT inhibitors ~~(target therapy)~~, Pan-Her inhibitors ~~(target therapy)~~, and any combination thereof.

~~44.~~21. The pharmaceutical composition of claim ~~33~~16 comprising a pharmaceutically acceptable carrier.

~~45.~~22. The pharmaceutical composition of claim ~~44~~16, wherein the pharmaceutical composition is a cancer vaccine.

~~46.~~23. The pharmaceutical composition of claim ~~33~~16 formulated for subcutaneous injection, intravenous administration or intra-muscular administration.

~~47. The pharmaceutical composition of claim 33 formulated for intravenous administration.~~

~~48. The pharmaceutical composition of claim 33 formulated for intra-muscular administration.~~

~~49.~~24. Use of the compound according to any one of claims 1 to ~~10~~7, the therapeutic composition according to ~~anyone of~~ claim~~s~~ ~~11~~8 ~~to 26~~ or the pharmaceutical composition according to any one of claims ~~27~~9 to ~~48~~23 in the preparation of a medicament for treating Globo H expressing cancer in a patient.

~~50.~~25. Use of the pharmaceutical composition according to claim ~~33~~16 in the preparation of a medicament for treating Globo H expressing cancer.

~~51.~~26. The use of claim 2~~49~~ or claim 25~~0~~, wherein the cancer is an epithelial ~~ovarian~~ cancer.

~~52.~~27. The use of claim 2~~49~~ or claim 25~~0~~, wherein the cancer is selected from breast cancer, lung cancer, liver cancer, buccal cancer, stomach cancer, colon cancer, nasopharyngeal cancer, dermal cancer, renal cancer, brain tumor, prostate cancer, ovarian cancer, cervical

cancer, endometrial cancer, intestinal cancer, pancreatic cancer and bladder cancer~~an epithelial cancer~~.

~~53.~~28. The use of claim 2~~49~~ or claim 2~~50~~, wherein the cancer is breast cancer.

~~54.~~29. The use of claim 2~~49~~ or claim 2~~50~~, wherein therapeutically effective amount of Globo-H moiety in the medicament comprises from ~~about~~ 0.01 μg/kg to ~~about~~ 250 mg/kg.

~~55.~~30. The use of claim 2~~49~~ or claim 2~~50~~, wherein therapeutically effective amount of Globo-H moiety in the medicament comprises from ~~about~~ 0.10 μg/kg to ~~about~~ 0.75 μg/kg.

~~56.~~31. The use of claim 2~~49~~ or claim 2~~50~~, wherein therapeutically effective amount of Globo-H-KLH complex in the medicament comprises from ~~about~~ 0.01 μg/kg to ~~about~~ 250 mg/kg.

~~57.~~32. The use of claim 2~~49~~ or claim 2~~50~~, wherein therapeutically effective amount of Globo-H-KLH complex in the medicament comprises from ~~about~~ 0.60 μg/kg to ~~about~~ 4.50 μg/kg.

~~58. A method of inducing antibodies in an animal or a human for the purpose of creating monoclonal antibodies comprising administering to the animal or human an effective amount of the compound according to any one of claim 1 to 10, the therapeutic composition according to any one of claim 11 to 26 or the pharmaceutical composition according to any one of claims 27 to 48.~~

~~59.~~33. Use of the compound according to any one of claims 1 to ~~10~~7, the therapeutic composition according to ~~anyone of~~ claim~~s~~ ~~11~~8 ~~to 26~~ or the pharmaceutical composition according to any one of claims ~~27~~9 to ~~48~~23 in the manufacturing of a preparation for inducing antibodies in an animal or a human for the purpose of creating monoclonal antibodies for therapeutic or diagnostic uses.