

WHAT IS CLAIMED IS:

1. A synthetic peptide consisting of 7 consecutive repeats of the amino acid sequence set forth as $X_1X_2X_3X_4X_5X_6X_7$ (SEQ ID NO: 1), wherein,
 - X_1 is alanine (A), aspartic acid (D), asparagine (N), leucine (L),
 5 phenylalanine (F), or valine (V);
 - X_2 is alanine (A), isoleucine (I), leucine (L), or valine (V);
 - X_3 is phenylalanine (F), tyrosine (Y) or tryptophan (W);
 - X_4 is arginine (R) or lysine (K);
 - X_5 is valine (V), methionine (M), isoleucine (I), leucine (L), or glutamine (Q);
 - 10 X_6 is arginine (R), glutamine (Q), lysine (K) or proline (P);
 - X_7 is serine (S) or threonine (T); and
 - each X_2 , X_3 , X_4 , X_6 and X_7 are independently L-form amino acid residues.
2. The synthetic peptide of claim 1, wherein at least one of X_1 and X_5 is a D-form amino acid residue.
- 15 3. The synthetic peptide of claim 2, wherein the synthetic peptide has the amino acid sequence of SEQ ID NO: 2.
4. The synthetic peptide of claim 3, wherein X_1 is in D-form.
5. The synthetic peptide of claim 3, wherein X_5 is in D-form.
6. The synthetic peptide of claim 1, wherein the synthetic peptide has the
 20 amino acid sequence that is any of SEQ ID NOs: 3, 4, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 or 21.
7. Use of a synthetic peptide for manufacturing a medicament for treating a disease or a condition related to angiogenesis, wherein the synthetic peptide consists of 7 consecutive repeats of the amino acid sequence set forth as
 25 $X_1X_2X_3X_4X_5X_6X_7$ (SEQ ID NO: 1), wherein,
 - X_1 is alanine (A), aspartic acid (D), asparagine (N), leucine (L),
 phenylalanine (F), or valine (V);
 - X_2 is alanine (A), isoleucine (I), leucine (L), or valine (V);
 - X_3 is phenylalanine (F), tyrosine (Y) or tryptophan (W);

X₄ is arginine (R) or lysine (K);

X₅ is valine (V), methionine (M), isoleucine (I), leucine (L), or glutamine (Q);

X₆ is arginine (R), glutamine (Q), lysine (K) or proline (P);

X₇ is serine (S) or threonine (T); and

5 each X₂, X₃, X₄, X₆ and X₇ are independently L-form amino acid residues.

8. The use of claim 7, wherein one of X₁ and X₅ is a D-form amino acid residue.

9. The use of claim 7, wherein the synthetic peptide has the amino acid sequence of SEQ ID NO: 2.

10 10. The use of claim 9, wherein X₁ is in D-form.

11. The use of claim 9, wherein X₅ is in D-form.

12. The use of claim 7, wherein the synthetic peptide has the amino acid sequence that is any of SEQ ID NOs: 3, 4, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, or 21.

15 13. The use of claim 9, wherein the disease or a condition related to angiogenesis is cancer, ocular disease, vascular anomaly, infection, cardiovascular disease or injury.

14. The use of claim 13, wherein the ocular disease is corneal neovascularization, choroidal neovascularization (CNV), diabetic retinopathy, 20 retinopathy of prematurity, age-related macular degeneration (AMD), juvenile macular degeneration, diabetic macular edema, retinitis pigmentosa, trachoma, glaucoma, dry eye syndrome, neuro-ophthalmic disease, retinal artery occlusion, uveitis, choroiditis, central serous chorioretinopathy (CSC), central exudative chorioretinopathy (CEC), polypoidal choroidal vasculopathy (PCV), neovascular 25 glaucoma, neovascular maculopathy, or post-laser complications.

15. The use of claim 14, wherein the ocular disease is age-related macular degeneration (AMD).

16. The use of claim 14, wherein the ocular disease is diabetic retinopathy.

17. The use of claim 13, wherein the cancer is selected from the group consisting of, breast cancer, cervical cancer, ovary cancer, endometrial cancer, melanoma, bladder cancer, lung cancer, pancreatic cancer, colon cancer, prostate cancer, hematopoietic tumors of lymphoid lineage, myeloid leukemia, thyroid cancer, thyroid follicular cancer, myelodysplastic syndrome (MDS), tumor of mesenchymal origin, melanoma, uveal melanoma, teratocarcinoma, neuroblastoma, glioma, glioblastoma, keratoacanthomas, renal cancer, analplastic large cell lymphoma, esophageal squamous cell carcinoma, hepatocellular carcinoma, follicular dendritic cell carcinoma, intestinal cancer, muscle invasive cancer, seminal vesicle tumor, epidermal carcinoma, spleen cancer, bladder cancer, head and neck cancer, stomach cancer, bone cancer, brain cancer, cancer of retina, biliary cancer, small bowel cancer, salivary gland cancer, uterine sarcoma, cancer of testicles, cancer of connective tissue, prostatic hypertrophy, myelodysplasia, Waldenstrom's macroglobulinemia, nasopharyngeal, neuroendocrine cancer, mesothelioma, angiosarcoma, Kaposi's sarcoma, oesophagogastric, fallopian tube cancer, peritoneal cancer, papillary serous mullerian cancer, malignant ascites, gastrointestinal stromal tumor (GIST), Li-Fraumeni syndrome and Von Hippel-Lindau syndrome (VHL).

18. The use of claim 17, wherein the hematopoietic tumors of lymphoid lineage is any of leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, B-cell lymphoma, Burkitt's lymphoma, multiple myeloma, Hodgkin's lymphoma, or Non-Hodgkin's lymphoma.

19. The use of claim 17, wherein the myeloid leukemia is acute myelogenous leukemia (AML) or chronic myelogenous leukemia (CML).

20. The use of claim 17, wherein the tumor of mesenchymal origin is fibrosarcomas or rhabdomyosarcomas.

21. The use of claim 17, wherein the cancer is metastatic.

22. The use of claim 21, wherein the cancer is metastatic lung cancer.

23. The use of claim 17, wherein the cancer is uterine sarcoma.

24. The use of claim 13, wherein the vascular anomaly is selected from the group consisting of, vascular permeability, plasma leakage, venous malformation (VM), hemangioblastoma, hemangiomas, brain arteriovenous malformations (BAVM), arteriosclerosis, thrombosis, choroidal neovascularization (CNV), and
5 Osler-Weber syndrome.

25. The use of claim 24, wherein the vascular anomaly is choroidal neovascularization (CNV).

26. The use of claim 13, wherein the infection is a bacterial infection, virus infection, fungal infection, or protozoan infection.

10 27. The use of claim 13, wherein the cardiovascular disease is selected from the group consisting of, atherosclerosis, myocardial angiogenesis, hyperviscosity syndromes, vein occlusion, artery occlusion, carotid obstructive disease, Osler-Weber-Rendu disease, myocarditis, cerebrovascular accident, mitral valve regurgitation, hypotension, arterial or post-transplantational
15 arteriosclerosis, fibrosis, thrombosis, and platelet aggregation.

28. A method of treating a subject suffering from a disease or a condition related to angiogenesis comprising administering to the subject an effective amount of a synthetic peptide consisting of 7 consecutive repeats of the amino acid sequence set forth as $X_1X_2X_3X_4X_5X_6X_7$ (SEQ ID NO: 1), wherein,

20 X_1 is alanine (A), aspartic acid (D), asparagine (N), leucine (L), phenylalanine (F), or valine (V);

X_2 is alanine (A), isoleucine (I), leucine (L), or valine (V);

X_3 is phenylalanine (F), tyrosine (Y) or tryptophan (W);

X_4 is arginine (R) or lysine (K);

25 X_5 is valine (V), methionine (M), isoleucine (I), leucine (L), or glutamine (Q);

X_6 is arginine (R), glutamine (Q), lysine (K) or proline (P);

X_7 is serine (S) or threonine (T); and

each X_2 , X_3 , X_4 , X_6 and X_7 are independently L-form amino acid residues.

29. The method of claim 28, wherein at least one of X_1 and X_5 is a D-form amino acid residue;

30. The method of claim 28, wherein the synthetic peptide has the amino acid sequence of SEQ ID NO: 2.

5 31. The method of claim 30, wherein X_1 is in D-form.

32. The method of claim 30, wherein X_5 is in D-form.

33. The method of claim 28, wherein the synthetic peptide has the amino acid sequence that is any of SEQ ID NOs: 3, 4, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, or 21.

10 34. The method of claim 28, wherein the disease or a condition related to angiogenesis is cancer, ocular disease, vascular anomaly, infection, cardiovascular disease or injury.

35. The method of claim 34, wherein the ocular disease is corneal neovascularization, choroidal neovascularization (CNV), diabetic retinopathy, 15 retinopathy of prematurity, age-related macular degeneration (AMD), juvenile macular degeneration, diabetic macular edema, retinitis pigmentosa, trachoma, glaucoma, dry eye syndrome, neuro-ophthalmic disease, retinal artery occlusion, uveitis, choroiditis, central serous chorioretinopathy (CSC), central exudative chorioretinopathy (CEC), polypoidal choroidal vasculopathy (PCV), neovascular 20 glaucoma, neovascular maculopathy, or post-laser complications.

36. The method of claim 36, wherein the ocular disease is age-related macular degeneration (AMD).

37. The method of claim 36, wherein the ocular disease is diabetic retinopathy.

25 38. The method of claim 34, wherein the cancer is selected from the group consisting of, breast cancer, cervical cancer, ovary cancer, endometrial cancer, melanoma, bladder cancer, lung cancer, pancreatic cancer, colon cancer, prostate cancer, hematopoietic tumors of lymphoid lineage, myeloid leukemia, thyroid cancer, thyroid follicular cancer, myelodysplastic syndrome

(MDS), tumor of mesenchymal origin, melanoma, uveal melanoma, teratocarcinoma, neuroblastoma, glioma, glioblastoma, keratoacanthomas, renal cancer, anaplastic large cell lymphoma, esophageal squamous cell carcinoma, hepatocellular carcinoma, follicular dendritic cell carcinoma, intestinal cancer, muscle invasive cancer, seminal vesicle tumor, epidermal carcinoma, spleen cancer, bladder cancer, head and neck cancer, stomach cancer, bone cancer, brain cancer, cancer of retina, biliary cancer, small bowel cancer, salivary gland cancer, uterine sarcoma, cancer of testicles, cancer of connective tissue, prostatic hypertrophy, myelodysplasia, Waldenstrom's macroglobulinemia, nasopharyngeal, neuroendocrine cancer, mesothelioma, angiosarcoma, Kaposi's sarcoma, oesophagogastric, fallopian tube cancer, peritoneal cancer, papillary serous mullerian cancer, malignant ascites, gastrointestinal stromal tumor (GIST), Li-Fraumeni syndrome and Von Hippel-Lindau syndrome (VHL).

39. The method of claim 38, wherein the hematopoietic tumors of lymphoid lineage is any of leukemia, acute lymphocytic leukemia, chronic lymphocytic leukemia, B-cell lymphoma, Burkitt's lymphoma, multiple myeloma, Hodgkin's lymphoma, or Non-Hodgkin's lymphoma.

40. The method of claim 38, wherein the myeloid leukemia is acute myelogenous leukemia (AML) or chronic myelogenous leukemia (CML).

41. The method of claim 38, wherein the tumor of mesenchymal origin is fibrosarcomas or rhabdomyosarcomas.

42. The method of claim 38, wherein the cancer is metastatic.

43. The method of claim 42, wherein the cancer is metastatic lung cancer.

44. The method of claim 38, wherein the cancer is uterine sarcoma.

45. The method of claim 34, wherein the vascular anomaly is selected from the group consisting of, vascular permeability, plasma leakage, venous malformation (VM), hemangioblastoma, hemangiomas, brain arteriovenous

malformations (BAVM), arteriosclerosis, thrombosis, choroidal neovascularization (CNV), and Osler-Weber syndrome.

46. The method of claim 45, wherein the vascular anomaly is choroidal neovascularization (CNV).

5 47. The method of claim 34, wherein the infection is a bacterial infection, virus infection, fungal infection, or protozoan infection.

48. The method of claim 34, wherein the cardiovascular disease is selected from the group consisting of, atherosclerosis, myocardial angiogenesis, hyperviscosity syndromes, vein occlusion, artery occlusion, carotid obstructive
10 disease, Osler-Weber-Rendu disease, myocarditis, cerebrovascular accident, mitral valve regurgitation, hypotension, arterial or post-transplantational artherosclerosis, fibrosis, thrombosis, and platelet aggregation.

49. The method of claim 28, wherein the subject is a human.