WHAT IS CLAIMED IS:

Claim 1. An ADAM9-binding molecule that comprises an ADAM9-binding domain, wherein said ADAM9-binding domain comprises a Light Chain Variable (VL) Domain and a Heavy Chain Variable (VH) Domain, wherein said Heavy Chain Variable Domain comprises a CDR_H1 Domain, a CDR_H2 Domain and a CDR_H3 Domain, and said Light Chain Variable Domain comprises a CDR_L1 Domain, a CDR_L2 Domain, and a CDR_L3 Domain, wherein:

(A) said CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain have the amino acid sequence of the CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of a Heavy Chain Variable (VH) Domain of an optimized variant of **MAB-A**; and said CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain have the amino acid sequence of the CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain of the Light Chain Variable (VL) Domain of **MAB-A**; or

(B) said CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain have the amino acid sequence of the CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of the Heavy Chain Variable (VH) Domain of **MAB-A**; and said CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain have the amino acid sequence of the CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain of a Light Chain Variable (VL) Domain of an optimized variant of **MAB-A**; or

(C) said CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain have the amino acid sequence of the CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of a Heavy Chain Variable (VH) Domain of an optimized variant of **MAB-A**; and said CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain have the amino acid sequence of the CDR_L1 Domain, CDR_L2 Domain, and CDR_L3 Domain of a Light Chain Variable (VL) Domain of an optimized variant of **MAB-A**.

Claim 2. The ADAM9-binding molecule of claim 1, wherein said ADAM9-binding domain possesses:

(A) (1) the CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of the Heavy Chain Variable (VH) Domain of **MAB-A**; and

(2) the FR1, FR2, FR3 and FR4 of a VH Domain of a humanized variant of **MAB-A**; or

(B) (1) the CDR_L1 Domain, CDR_L2 Domain and CDR_L3 Domain of the Light Chain Variable (VL) Domain **MAB-A**; and

(2) the FR1, FR2, FR3 and FR4 of a VL Domain of a humanized variant of **MAB-A**; or

(C) (1) the CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of a Heavy Chain Variable (VH) Domain of an optimized variant of **MAB-A**; and

(2) the FR1, FR2, FR3 and FR4 of the VH Domain of a humanized variant of **MAB-A**; or

(D) (1) the CDR_L1 Domain, CDR_L2 Domain and CDR_L3 Domain of a Light Chain Variable (VL) Domain of an optimized variant of **MAB-A**; and

(2) the FR1, FR2, FR3 and FR4 of the VL Domain of a humanized variant of **MAB-A**; or

(E) (1) the Heavy Chain Variable (VH) Domain of a humanized/optimized variant of **MAB-A**; and

(2) the VL Light Chain Variable (VL) Domain of a humanized/optimized variant of **MAB-A**.

Claim 3. The ADAM9-binding molecule of any one of claims 1 or 2, wherein said Heavy Chain Variable (VH) Domain of said optimized variant of **MAB-A** comprises the amino acid sequence of **SEQ ID NO:15**:

EVQLVESGGG LVKPGGSLRL SCAASGFTFS **SYWX_1H**WVRQA
PGKGLEWVG**E** **IIPIX_2GHTNY** **NEX_3F$X_4$$X_5$**RFTI SLDNSKNTLY
LQMGSLRAED TAVYYCAR**GG** **YYYY$X_6$$X_7$$X_8$$X_9$$X_{10}$$X_{11}$**
DYWGQGTTVT VSS

wherein: X_1, X_2, X_3, X_4, X_5, and X_6 are independently selected,

wherein: X_1 is M or I; X_2 is N or F;

X_3 is K or R; X_4 is K or Q;

X_5 is S or G, and X_6 is P, F, Y, W, I, L, V, T, G or D;

wherein: X_7, X_8, X_9, X_{10}, and X_{11} are selected such that:

when X_6 is P; X_7 is K or R; X_8 is F or M; X_9 is G; X_{10} is W or F; and X_{11} is M, L or K;

when X_6 is F, Y or W; X_7 is N or H; X_8 is S or K; X_9 is G or A; X_{10} is T or V; and X_{11} is M, L or K;

when X_6 is I, L or V; X_7 is G; X_8 is K; X_9 is G or A; X_{10} is V; and X_{11} is M, L or K;

when X_6 is T; X_7 is G; X_8 is K, M or N; X_9 is G; X_{10} is V or T; and X_{11} is L or M;

when X_6 is G; X_7 is G; X_8 is S; X_9 is G; X_{10} is V; and X_{11} is L;

when X_6 is D; X_7 is S; X_8 is N; X_9 is A; X_{10} is V; and X_{11} is L.

Claim 4. The ADAM9-binding molecule of any one of claims 1-3, wherein said CDR_H1 Domain, CDR_H2 Domain and CDR_H3 Domain of said Heavy Chain Variable (VH) Domain of said optimized variant of **MAB-A** respectively have the amino acid sequences of:

(1) **SEQ ID NO:47** (SYWX$_1$H)

wherein: X_1 is M or I;

(2) **SEQ ID NO:48** (EIIPIX$_2$GHTNYNEX$_3$FX$_4$X$_5$)

wherein: X_2, X_3, X_4, and X_5 are independently selected, and

wherein: X_2 is N or F; X_3 is K or R;

X_4 is K or Q; and

X_5 is S or G; and

(3) **SEQ ID NO:49** (GGYYYYX$_6$X$_7$X$_8$X$_9$X$_{10}$X$_{11}$DY)

wherein: X_6, is P, F, Y, W, I, L, V, T, G or D, and X_7, X_8, X_9, X_{10}, and X_{11} are selected such that:

(A) when X_6 is P:

X_7 is K or R; X_8 is F or M; X_9 is G;

X_{10} is W or F; and X_{11} is M, L or K;

(B) when X_6 is F, Y or W:

X_7 is N or H; X_8 is S or K; X_9 is G or A;

X_{10} is T or V; and X_{11} is M, L or K;

(C) when X_6 is I, L or V:

X_7 is G; X_8 is K; X_9 is G or A;

X_{10} is V; and X_{11} is M, L or K;

(D) when X_6 is T:

X_7 is G; X_8 is K, M or N; X_9 is G;

X_{10} is V or T; and X_{11} is L or M;

(E) when X_6 is G:

X_7 is G; X_8 is S; X_9 is G;

X_{10} is V; and X_{11} is L; and

(F) when X_6 is D:

X_7 is S; X_8 is N; X_9 is A;

X_{10} is V; and X_{11} is L.

Claim 5. The ADAM9-binding molecule of claim 4, wherein said Heavy Chain Variable (VH) Domain of said optimized variant of **MAB-A** is selected from the group consisting of:

(1) **hMAB-A VH(1) (SEQ ID NO:16)**;

(2) **hMAB-A VH(2) (SEQ ID NO:17)**;

(3) **hMAB-A VH(3) (SEQ ID NO:18)**;

(4) **hMAB-A VH(4) (SEQ ID NO:19)**;

(5) **hMAB-A VH(2A) (SEQ ID NO:20)**;

(6) **hMAB-A VH(2B) (SEQ ID NO:21)**;

(7) **hMAB-A VH(2C) (SEQ ID NO:22)**;

(8) **hMAB-A VH(2D) (SEQ ID NO:23)**;

(9) **hMAB-A VH(2E) (SEQ ID NO:24)**;

(10) **hMAB-A VH(2F) (SEQ ID NO:25)**;

(11) **hMAB-A VH(2G) (SEQ ID NO:26)**;

(12) **hMAB-A VH(2H) (SEQ ID NO:27)**;

(13) **hMAB-A VH(2I) (SEQ ID NO:28)**; and

(14) **hMAB-A VH(2J) (SEQ ID NO:29)**.

Claim 6. The ADAM9-binding molecule of any one of claims 1-5, wherein said Light Chain Variable (VL) Domain comprises the amino acid sequence of **SEQ ID NO:53**:

DIVMTQSPDS LAVSLGERAT ISCX_{12}ASQSVD
$YX_{13}GDSYX_{14}N$WY QQKPGQPPKL LIYAASDLES
GIPARFSGSG SGTDFTLTIS SLEPEDFATY
YC$QQSX_{15}X_{16}X_{17}PF$ TFGQGTKLEI K

wherein: $\mathbf{X_{12}}$, $\mathbf{X_{13}}$, $\mathbf{X_{14}}$, $\mathbf{X_{15}}$, $\mathbf{X_{16}}$, and $\mathbf{X_{17}}$, are independently selected, and

wherein: $\mathbf{X_{12}}$ is K or R; $\mathbf{X_{13}}$ is D or S;

$\mathbf{X_{14}}$ is M or L; $\mathbf{X_{15}}$ is H or Y;

$\mathbf{X_{16}}$ is E or S; and $\mathbf{X_{17}}$ is D or T.

Claim 7. The ADAM9-binding molecule of any one of claims 1-6, wherein said CDR_L1 Domain, CDR_L2 Domain and CDR_L3 Domain of said Light Chain Variable (VL) Domain of said optimized variant of **MAB-A** respectively have the amino acid sequences of:

(1) **SEQ ID NO:66** (X_{12}ASQSVDYX_{13}GDSYX_{14}N)

wherein: $\mathbf{X_{12}}$, $\mathbf{X_{13}}$, $\mathbf{X_{14}}$, are independently selected, and

wherein: $\mathbf{X_{12}}$ is K or R; $\mathbf{X_{13}}$ is D or S; and $\mathbf{X_{14}}$ is M or L;

(2) **SEQ ID NO:13** (AASDLES); and

(3) **SEQ ID NO:67** (QQS$X_{15}X_{16}X_{17}$PFT)

wherein: $\mathbf{X_{15}}$, $\mathbf{X_{16}}$, and $\mathbf{X_{17}}$, are independently selected, and

wherein: $\mathbf{X_{15}}$ is H or Y; $\mathbf{X_{16}}$ is E or S; and $\mathbf{X_{17}}$ is D or T.

Claim 8. The ADAM9-binding molecule of claim 7, wherein said Light Chain Variable (VL) Domain of said optimized variant of **MAB-A** is selected from the group consisting of:

(1) **hMAB-A VL(1) (SEQ ID NO:54)**;

(2) **hMAB-A VL(2) (SEQ ID NO:55)**;

(3) **hMAB-A VL(3) (SEQ ID NO:56)**;

(4) **hMAB-A VL(4) (SEQ ID NO:57)**;

(5) **hMAB-A VL(2A) (SEQ ID NO:20)**.

Claim 9. The ADAM9-binding molecule of claim 1, wherein said ADAM9-binding domain comprises:

(A) (1) a CDR_H1 Domain that comprises the amino acid sequence SYWMH (**SEQ ID NO:8**);

(2) a CDR_H2 Domain that comprises the amino acid sequence EIIPIFGHTNYNEKFKS (**SEQ ID NO:35**); or

(3) a CDR_H3 Domain that comprises the amino acid sequence GGYYYYPRQGFLDY (**SEQ ID NO:45**);

or

(B) (1) a CDR_L1 Domain that comprises the amino acid sequence KASQSVDYSGDSYMN (**SEQ ID NO:62**);

(2) a CDR_L2 Domain that comprises the amino acid sequence AASDLES (**SEQ ID NO:13**); or

(3) a CDR_L3 Domain that comprises the amino acid sequence QQSHEDPFT (**SEQ ID NO:14**);

Claim 10. The ADAM9-binding molecule of claim 9, wherein said ADAM9-binding domain comprises said CDR_H1 Domain that comprises the amino acid sequence SYWMH (**SEQ ID NO:8**), said CDR_H2 Domain that comprises the amino acid sequence EIIPIFGHTNYNEKFKS (**SEQ ID NO:35**), and said CDR_H3 Domain that comprises the amino acid sequence GGYYYYPRQGFLDY (**SEQ ID NO:45**).

Claim 11. The ADAM9-binding molecule of any one of claims 9 or 10, wherein said ADAM9-binding domain comprises said CDR_L1 Domain that comprises the amino acid sequence KASQSVDYSGDSYMN (**SEQ ID NO:62**), said CDR_L2 Domain that comprises the amino acid sequence AASDLES (**SEQ ID NO:13**), and said CDR_L3 Domain that cpomprises the amino acid sequence QQSHEDPFT (**SEQ ID NO:14**).

Claim 12. The ADAM9-binding molecule of any one of claims 9-11, wherein said ADAM9-binding domain comprises:

(A) the Heavy Chain Variable (VH) Domain of **hMAB-A (2I.2)** (**SEQ ID NO:28**); or

(B) the Light Chain Variable (VL) Domain of **hMAB-A (2I.2)** (**SEQ ID NO:55**); or

(C) the Heavy Chain Variable (VH) Domain of **hMAB-A (2I.2)** (**SEQ ID NO:28**) and the Light Chain Variable (VL) Domain of **hMAB-A (2I.2)** (**SEQ ID NO:55**).

Claim 13. The ADAM9-binding molecule of claim 1, wherein said ADAM9-binding domain comprises a CDR_H1 domain, a CDR_H2 domain, and a CDR_H3 domain and a CDR_L1 domain, a CDR_L2 domain, and a CDR_L3 domain having the sequences selected from the group consisting of:

(a) **SEQ ID NOs:8**, **35** and **10** and **SEQ ID NOs:62**, **13** and **14**, respectively

(b) **SEQ ID NOs:8**, **35** and **10** and **SEQ ID NOs:63**, **13** and **14**, respectively;

(c) **SEQ ID NOs:8**, **36** and **10** and **SEQ ID NOs:63**, **13** and **14**, respectively; and

(d) **SEQ ID NOs:34**, **36** and **10** and **SEQ ID NO:64**, **13** and **65**, respectively.

Claim 14. The ADAM9-binding molecule of claim 13, wherein said ADAM9-binding domain comprises a heavy chain variable domain (VH) and a light chain variable domain (VL) having sequences that are at least 90%, at least 95%, or at least 99% identical to sequences selected from the group consisting of:

(a) **SEQ ID NO:17** and **SEQ ID NO:55**, respectively;

(b) **SEQ ID NO:17** and **SEQ ID NO:56**, respectively;

(c) **SEQ ID NO:18** and **SEQ ID NO:56**, respectively; and

(d) **SEQ ID NO:19** and **SEQ ID NO:57**, respectively.

Claim 15. The ADAM9-binding molecule of claim 14, wherein said ADAM9-binding domain comprises a heavy chain variable domain (VH) and a light chain variable domain (VL) having the sequences selected from the group consisting of:

(a) **SEQ ID NO:17** and **SEQ ID NO:55**, respectively;

(b) **SEQ ID NO:17** and **SEQ ID NO:56**, respectively;

(c) **SEQ ID NO:18** and **SEQ ID NO:56**, respectively; and

(d) **SEQ ID NO:19** and **SEQ ID NO:57**, respectively.

Claim 16. The ADAM9-binding molecule of claim 1, wherein said ADAM9-binding domain has at least a 150-fold enhancement in binding affinity to cyno ADAM9 and retains high affinity binding to human ADAM9 as compared to **MAB-A**.

Claim 17. The ADAM9-binding molecule of claim 16, wherein said ADAM9-binding domain comprises a CDR_H1 domain, a CDR_H2 domain, and a CDR_H3

domain and a CDR_L1 domain, a CDR_L2 domain, and a CDR_L3 domain having the sequences selected from the group consisting of:

(a) **SEQ ID NOs:8**, **35** and **37** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(b) **SEQ ID NOs:8**, **35** and **38** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(c) **SEQ ID NOs:8**, **35** and **39** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(d) **SEQ ID NOs:8**, **35** and **40** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(e) **SEQ ID NOs:8**, **35** and **41** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(f) **SEQ ID NOs:8**, **35** and **42** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(g) **SEQ ID NOs:8**, **35** and **43** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(h) **SEQ ID NOs:8**, **35** and **44** and **SEQ ID NOs:62**, **13** and **14**, respectively;

(i) **SEQ ID NOs:8**, **35** and **45** and **SEQ ID NOs:62**, **13** and **14**, respectively; and

(j) **SEQ ID NOs:8**, **35** and **46** and **SEQ ID NOs:62**, **13** and **14**, respectively.

Claim 18. The ADAM9-binding molecule of claim 19, wherein said ADAM9-binding domain comprises a heavy chain variable domain (VH) and a light chain variable domain (VL) having sequences that are at least 90%, at least 95%, or at least 99% identical to sequences selected from the group consisting of:

(a) **SEQ ID NO:20** and **SEQ ID NO:55**, respectively;

(b) **SEQ ID NO:21** and **SEQ ID NO:55**, respectively;

(c) **SEQ ID NO:22** and **SEQ ID NO:55**, respectively;

(d) **SEQ ID NO:23** and **SEQ ID NO:55**, respectively;

(e) **SEQ ID NO:24** and **SEQ ID NO:55**, respectively;

(f) **SEQ ID NO:25** and **SEQ ID NO:55**, respectively;

(g) **SEQ ID NO:26** and **SEQ ID NO:55**, respectively;

(h) **SEQ ID NO:27** and **SEQ ID NO:55**, respectively;
(i) **SEQ ID NO:28** and **SEQ ID NO:55**, respectively; and
(j) **SEQ ID NO:29** and **SEQ ID NO:55**, respectively.

Claim 19. The ADAM9-binding molecule of claim 18, wherein said ADAM9-binding domain comprises a heavy chain variable domain (VH) and a light chain variable domain (VL) having the sequences selected from the group consisting of:

(a) **SEQ ID NO:20** and **SEQ ID NO:55**, respectively;
(b) **SEQ ID NO:21** and **SEQ ID NO:55**, respectively;
(c) **SEQ ID NO:22** and **SEQ ID NO:55**, respectively;
(d) **SEQ ID NO:23** and **SEQ ID NO:55**, respectively;
(e) **SEQ ID NO:24** and **SEQ ID NO:55**, respectively;
(f) **SEQ ID NO:25** and **SEQ ID NO:55**, respectively;
(g) **SEQ ID NO:26** and **SEQ ID NO:55**, respectively;
(h) **SEQ ID NO:27** and **SEQ ID NO:55**, respectively;
(i) **SEQ ID NO:28** and **SEQ ID NO:55**, respectively; and
(j) **SEQ ID NO:29** and **SEQ ID NO:55**, respectively.

Claim 20. The ADAM9-binding molecule of any one of claims 1-19, wherein said molecule is a monospecific ADAM9-binding antibody or an ADAM9-binding fragment thereof.

Claim 21. The ADAM9-binding molecule of any one of claims 1-19, wherein said molecule is a bispecific antibody.

Claim 22. The ADAM9-binding molecule of any one of claims 1-19, wherein said molecule is a diabody, said diabody being a covalently bonded complex that comprises two, three, four or five polypeptide chains.

Claim 23. The ADAM9-binding molecule of any one of claims 1-19, wherein said molecule is a trivalent binding molecule, said trivalent binding molecule being a covalently bonded complex that comprises three, four, five, or more polypeptide chains.

Claim 24. The ADAM9-binding molecule of any one of claims 22-23, wherein said molecule comprises an Albumin-Binding Domain (ABD).

Claim 25. The ADAM9-binding molecule of any one of claims 21-24, wherein said ADAM9-binding molecule comprises an Fc Region.

Claim 26. The ADAM9-binding molecule of claim 21, wherein said Fc Region is a variant Fc Region that comprises:

(a) one or more amino acid modification(s) that reduce(s) the affinity of the variant Fc Region for an FcγR; and/or

(b) one or more amino acid modification(s) that enhance(s) the serum half-life of said ADAM9-binding molecule.

Claim 27. The ADAM9-binding molecule of claim 26, wherein said one or more amino acid modification(s) that reduce(s) the affinity of the variant Fc Region for an FcγR comprise:

(A) L234A;

(B) L235A; or

(C) L234A and L235A;

wherein said numbering is that of the EU index as in Kabat.

Claim 28. The ADAM9-binding molecule of any one of claims 26 or 27, wherein said one or more amino acid modification(s) that that enhance(s) the serum half-life of said ADAM9-binding molecule comprise:

(A) M252Y;

(B) M252Y and S254T;

(C) M252Y and T256E;

(D) M252Y, S254T and T256E; or

(E) K288D and H435K;

wherein said numbering is that of the EU index as in Kabat.

Claim 29. The ADAM9-binding molecule of any one of claims 1-20 or 22-28, wherein said molecule is bispecific and comprises an epitope-binding site capable of immunospecific binding to an epitope of ADAM9 and an epitope-binding site capable of immunospecific binding to an epitope of a molecule present on the surface of an effector cell.

Claim 30. The ADAM9-binding molecule of claim 22, wherein said molecule comprises two epitope-binding sites capable of immunospecific binding to epitope(s) of ADAM9 and two epitope-binding sites capable of immunospecific binding to epitope(s) of a molecule present on the surface of an effector cell.

Claim 31. The ADAM9-binding molecule of any one of claims 1-19 or 23-28, wherein said molecule is trispecific and comprises:

(a) one epitope-binding site capable of immunospecific binding to an epitope of ADAM9;

(b) one epitope-binding site capable of immunospecific binding to an epitope of a first molecule present on the surface of an effector cell; and

(c) one epitope-binding site capable of immunospecific binding to an epitope of a second molecule present on the surface of an effector cell.

Claim 32. The ADAM9-binding molecule of any one of claims 29-31, wherein said molecule is capable of simultaneously binding to ADAM9 and said molecule present on the surface of an effector cell.

Claim 33. The ADAM9-binding molecule of any one of claims 29-32, wherein said molecule present on the surface of an effector cell is CD2, CD3, CD8, TCR, or NKG2D.

Claim 34. The ADAM9-binding molecule of any one of claims 29-33, wherein said effector cell is a cytotoxic T-cell or a Natural Killer (NK) cell.

Claim 35. The ADAM9-binding molecule of any of claims 29-34, wherein said molecule present on the surface of said effector cell is CD3.

Claims 36. The ADAM9-binding molecule of claim 31, wherein said first molecule present on the surface of an effector cell is CD3 and said second molecule present on the surface of an effector cell is CD8.

Claim 37. The ADAM9-binding molecule of any one of claims 29-36, wherein said ADAM9-binding molecule mediates coordinated binding of a cell expressing ADAM9 and a cytotoxic T cell.

Claim 38. A pharmaceutical composition that comprises an effective amount of the ADAM9-binding molecule of any of claims 1-37 and a pharmaceutically acceptable carrier, excipient or diluent.

Claim 39. Use of the ADAM9-binding molecule of any one of claims 1-37 or the pharmaceutical composition of claim 38 in the treatment of a disease or condition associated with, or characterized by, the expression of ADAM9.

Claim 40. The use of claim 39, wherein said disease or condition associated with, or characterized by, the expression of ADAM9 is cancer.

Claim 41. The use of claim 40, wherein said cancer is selected from the group consisting: bladder cancer, breast cancer, cervical cancer, colorectal cancer, esophageal cancer, gastric cancer, head and neck cancer, liver cancer, non-small-cell lung cancer, myeloid cancer, ovarian cancer, pancreatic cancer, prostate cancer, renal cell carcinoma, thyroid cancer, testicular cancer, and uterine cancer.

Claim 42. The use of claim 41, wherein said non-small-cell lung cancer is squamous cell carcinoma, adenocarcinoma, or large-cell undifferentiated carcinoma.

Claim 43. The use of claim 41, wherein said colorectal cancer is adenocarcinoma, gastrointestinal carcinoid tumors, gastrointestinal stromal tumors, primary colorectal lymphoma, leiomyosarcoma, melanoma, or squamous cell carcinoma.

Claim 44. A method for treating a disease or condition associated with, or characterized by, the expression of ADAM9 in a subject comprising administering to said subject an effective amount of the ADAM9-binding molecule of any one of claims 1-37 or the pharmaceutical composition of claim 38.

Claim 45. The method of claim 44, wherein said disease or condition associated with, or characterized by, the expression of ADAM9 is cancer.

Claim 46. The method of claim 45, wherein said cancer is selected from the group consisting of bladder cancer, breast cancer, cervical cancer, colorectal cancer, esophageal cancer, gastric cancer, head and neck cancer, liver cancer, non-small-cell lung cancer, myeloid cancer, ovarian cancer, pancreatic cancer, prostate cancer, renal cell carcinoma, thyroid cancer, testicular cancer, and uterine cancer.

Claim 47. The method of claim 46, wherein said non-small-cell lung cancer is squamous cell carcinoma, adenocarcinoma, or large-cell undifferentiated carcinoma.

Claim 48. The method of claim 46, wherein said colorectal cancer is adenocarcinoma, gastrointestinal carcinoid tumors, gastrointestinal stromal tumors, primary colorectal lymphoma, leiomyosarcoma, melanoma, or squamous cell carcinoma.