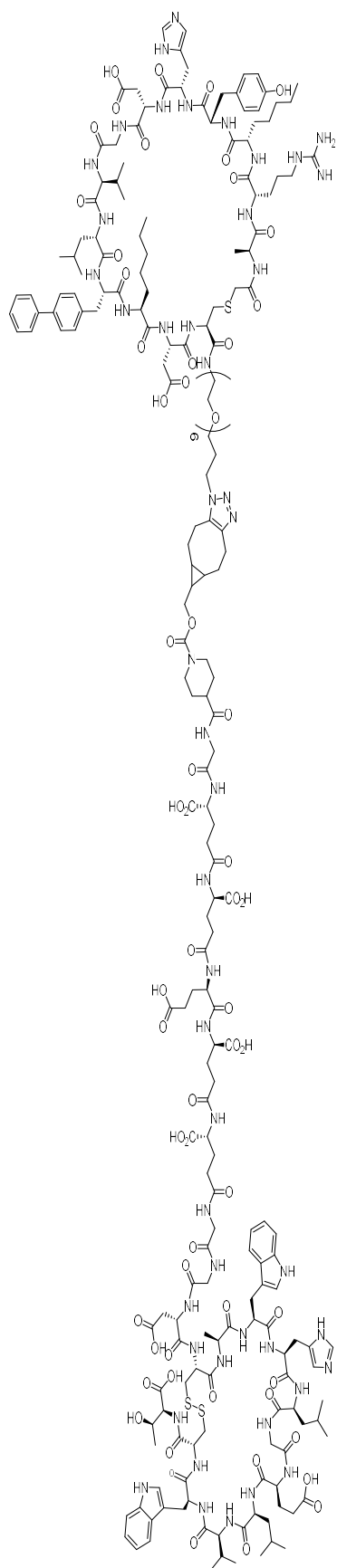


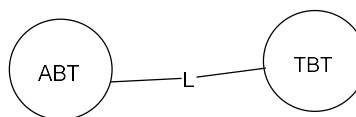
CLAIMS

1. An combination comprising:
 - (A) antibody-recruiting molecule (ARM), and
 - (B) a plurality of natural killer cells;wherein the ARM comprises:
 - (1) an antibody binding moiety of the formula:



; or

(2) an antibody-recruiting molecule (ARM) of formula **I**:

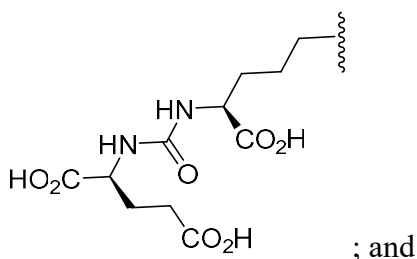


I

or a pharmaceutically acceptable salt thereof, wherein:

(a) the ABT is an antibody binding moiety that can bind to one or more antibodies, or fragments thereof;

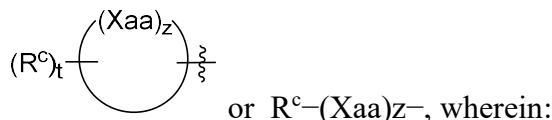
(b) the TBT is a target-binding moiety that is;



; and

(c) L is a linker moiety that connects the ABT with the TBT;

(i) wherein the ABT is a group of the formula



each Xaa is independently an amino acid residue;

t is 0-50;

z is 1-50;

each R^c is independently -L^a-R';

each L^a is independently a covalent bond, or an optionally substituted bivalent group selected C₁-C₂₀ aliphatic or C₁-C₂₀ heteroaliphatic having 1-5 heteroatoms, wherein one or more methylene units of the group are optionally and independently replaced with -C(R')₂-, -Cy-, -O-, -S-, -S-S-, -N(R')-, -C(O)-, -C(S)-, -C(NR')-, -C(O)N(R')-, -N(R')C(O)N(R')-, -N(R')C(O)O-, -S(O)-, -S(O)₂-, -S(O)₂N(R')-, -C(O)S-, or -C(O)O-;

each -Cy- is independently an optionally substituted bivalent group selected from a C₃₋₂₀ cycloaliphatic ring, a C₆₋₂₀ aryl ring, a 5-20 membered heteroaryl ring having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, and a

3-20 membered heterocyclyl ring having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon;

each R' is independently -R, -C(O)R, -CO₂R, or -SO₂R;

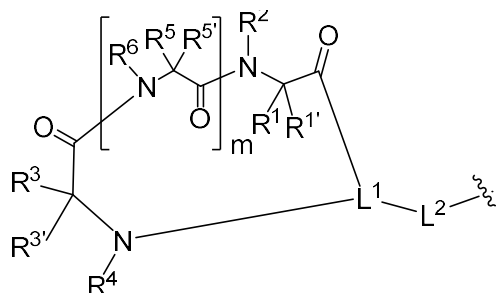
each R is independently -H, or an optionally substituted group selected from C₁₋₃₀ aliphatic, C₁₋₃₀ heteroaliphatic having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, C₆₋₃₀ aryl, C₆₋₃₀ arylaliphatic, C₆₋₃₀ arylheteroaliphatic having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, 5-30 membered heteroaryl having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, and 3-30 membered heterocyclyl having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, or

two R groups are optionally and independently taken together to form a covalent bond, or:

two or more R groups on the same atom are optionally and independently taken together with the atom to form an optionally substituted, 3-30 membered, monocyclic, bicyclic or polycyclic ring having, in addition to the atom, 0-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon; or

two or more R groups on two or more atoms are optionally and independently taken together with their intervening atoms to form an optionally substituted, 3-30 membered, monocyclic, bicyclic or polycyclic ring having, in addition to the intervening atoms, 0-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon; or

(ii) where the ABT-L- is a group of the formula



wherein

each of R^1 , R^3 , and R^5 is independently hydrogen or an optionally substituted group selected from C_{1-6} aliphatic, a 3-8 membered saturated or partially unsaturated monocyclic carbocyclic ring, phenyl, an 8-10 membered bicyclic aromatic carbocyclic ring, a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur, a 5-6 membered monocyclic heteroaromatic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered bicyclic heteroaromatic ring having 1-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or:

R^1 and $R^{1'}$ are optionally taken together with their intervening carbon atom to form a 3-8 membered saturated or partially unsaturated spirocyclic carbocyclic ring or a 4-8 membered saturated or partially unsaturated spirocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R^3 and $R^{3'}$ are optionally taken together with their intervening carbon atom to form a 3-8 membered saturated or partially unsaturated spirocyclic carbocyclic ring or a 4-8 membered saturated or partially unsaturated spirocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

an R^5 group and the $R^{5'}$ group attached to the same carbon atom are optionally taken together with their intervening carbon atom to form a 3-8 membered saturated or partially unsaturated spirocyclic carbocyclic ring or a 4-8 membered saturated or partially unsaturated spirocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

two R^5 groups are optionally taken together with their intervening atoms to form a C_{1-10} bivalent straight or branched saturated or unsaturated hydrocarbon chain wherein 1-3

methylene units of the chain are independently and optionally replaced with $-S-$, $-SS-$, $-N(R)-$, $-O-$, $-C(O)-$, $-OC(O)-$, $-C(O)O-$, $-C(O)N(R)-$, $-N(R)C(O)-$, $-S(O)-$, $-S(O)_2-$, or $-Cy^1-$, wherein each $-Cy^1-$ is independently a 5-6 membered heteroarylenyl with 1-4 heteroatoms independently selected from nitrogen, oxygen or sulfur;

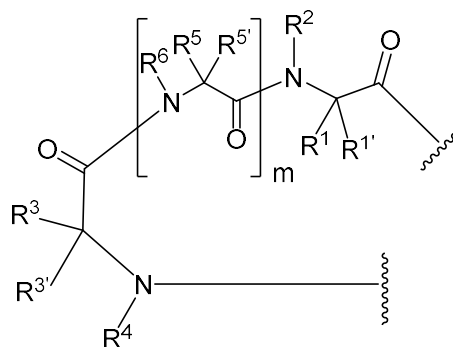
each of $R^{1'}$, $R^{3'}$, and $R^{5'}$ is independently hydrogen or C_{1-3} aliphatic;

each of R^2 , R^4 , and R^6 is independently hydrogen or C_{1-4} aliphatic, or:

R^2 and R^1 are optionally taken together with their intervening atoms to form a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

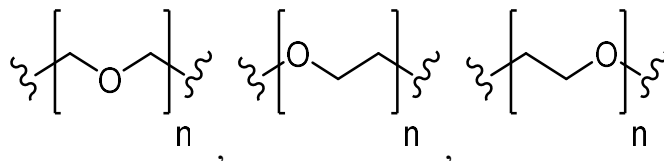
R^4 and R^3 are optionally taken together with their intervening atoms to form a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

an R^6 group and its adjacent R^5 group are optionally taken together with their intervening atoms to form a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;



L^1 is a trivalent linker moiety that connects and L^2 ;

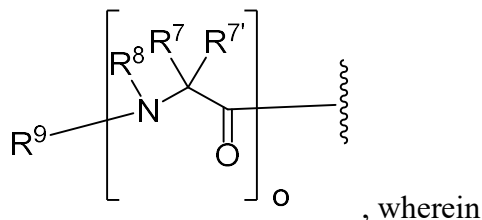
L^2 is a covalent bond or a C_{1-10} bivalent straight or branched saturated or unsaturated hydrocarbon chain wherein 1-3 methylene units of the chain are independently and optionally replaced with $-S-$, $-N(R)-$, $-O-$, $-C(O)-$, $-OC(O)-$, $-C(O)O-$, $-C(O)N(R)-$, $-N(R)C(O)-$, $-$



$-S(O)-$, $-S(O)_2-$, $-S(O)-$, $-S(O)_2-$, $-S(O)-$, $-S(O)_2-$, $-S(O)-$, $-S(O)_2-$, $-S(O)-$, $-S(O)_2-$, $-S(O)-$, $-S(O)_2-$, or $-Cy^1-$, wherein each $-Cy^1-$ is independently a 5-6 membered heteroarylenyl with 1-4 heteroatoms independently selected from nitrogen, oxygen or sulfur; and

each of m and n is independently 1, 2, 3, 4, 5, 6, 7, 8, 9, or 10; or

(iii) the ABT-is a group of the formula



each of R^7 is independently hydrogen or an optionally substituted group selected from C_{1-6} aliphatic, a 3-8 membered saturated or partially unsaturated monocyclic carbocyclic ring, phenyl, an 8-10 membered bicyclic aromatic carbocyclic ring, a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur, a 5-6 membered monocyclic heteroaromatic ring having 1-4 heteroatoms independently selected from nitrogen, oxygen, or sulfur, or an 8-10 membered bicyclic heteroaromatic ring having 1-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or:

an R^7 group and the $R^{7'}$ group attached to the same carbon atom are optionally taken together with their intervening carbon atom to form a 3-8 membered saturated or partially unsaturated spirocyclic carbocyclic ring or a 4-8 membered saturated or partially unsaturated spirocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

each of $R^{7'}$ is independently hydrogen or C_{1-3} aliphatic;

each of R^8 is independently hydrogen, or C_{1-4} aliphatic, or

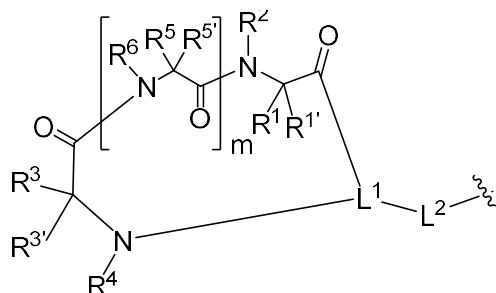
an R^8 group and its adjacent R^7 group are optionally taken together with their intervening atoms to form a 4-8 membered saturated or partially unsaturated monocyclic heterocyclic ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

R^9 is hydrogen, C_{1-3} aliphatic, or $-C(O)C_{1-3}$ aliphatic.

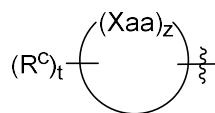
2. The combination of claim 1, wherein the natural killer cells are memory-like natural killer cells.

3. The combination of claim 1 or 2, wherein the natural killer cells are cytokine-induced memory-like natural killer cells induced by IL-12, IL-15 and IL-18.

4. The combination of any one of claims 1 to 3, wherein the ABT-L- is a group of the formula:



5. The combination of any one of claims 1 to 3, wherein the ABT is a group of the formula

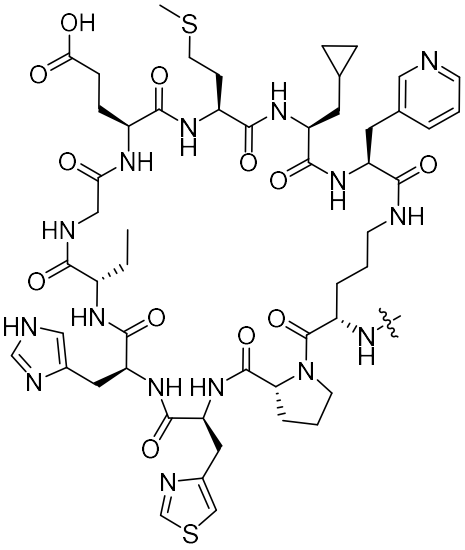
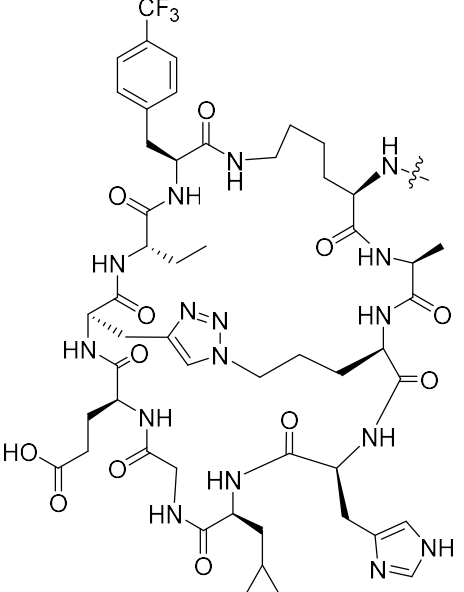
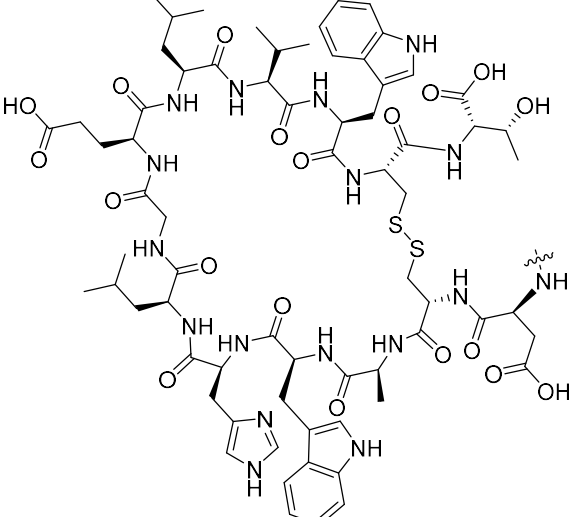
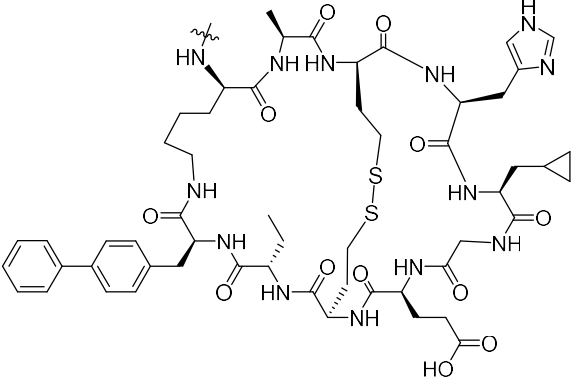


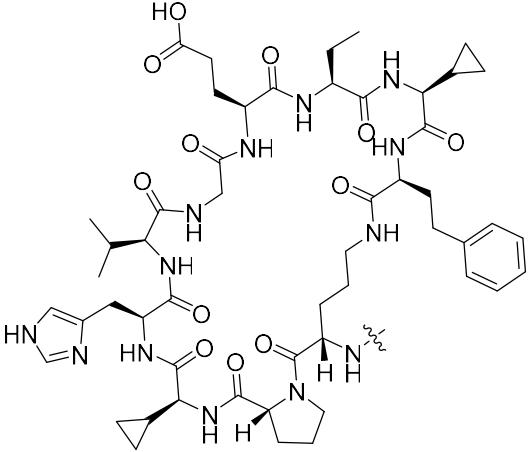
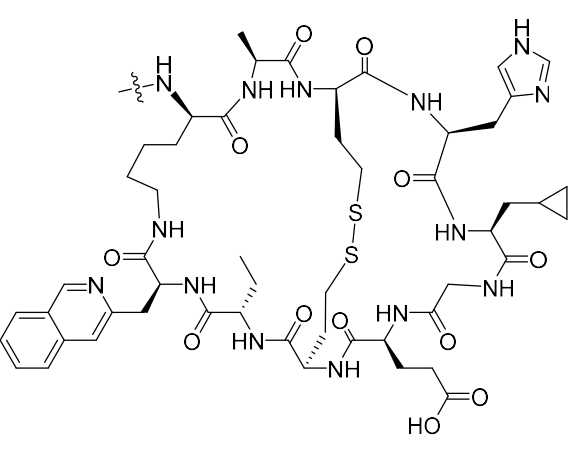
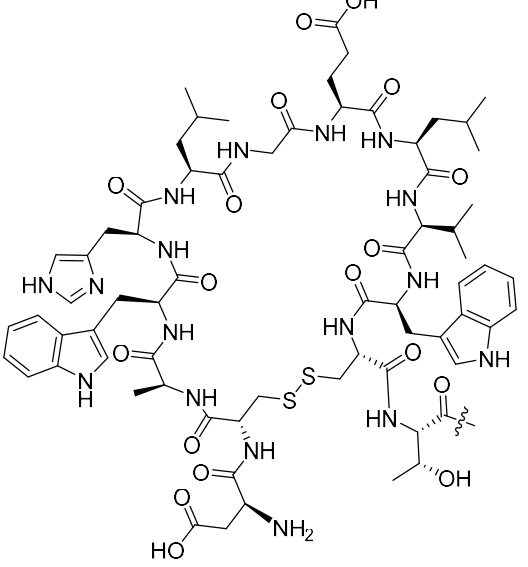
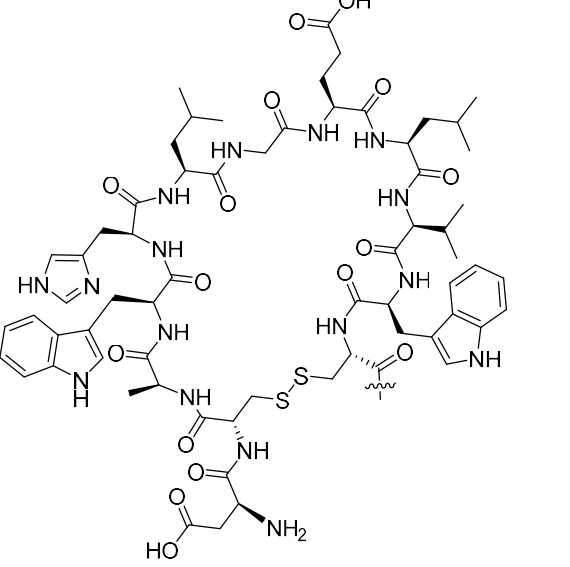
6. The combination of claim 1, wherein the antibody binding moiety (ABT) is or comprises a peptide unit that is or comprises DCAWHLGELVWCT, wherein the two cysteine residues optionally form a disulfide bond.

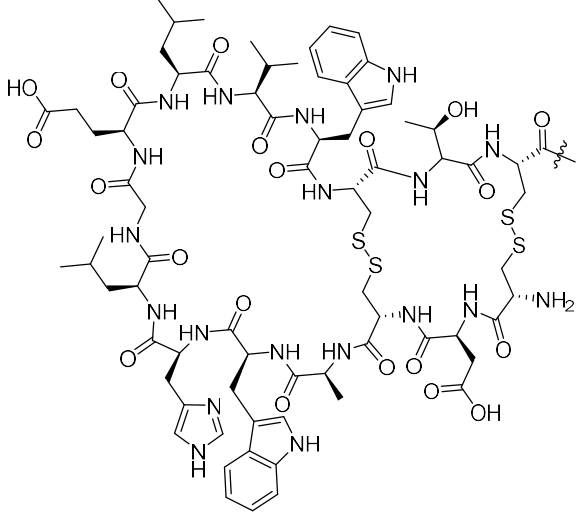
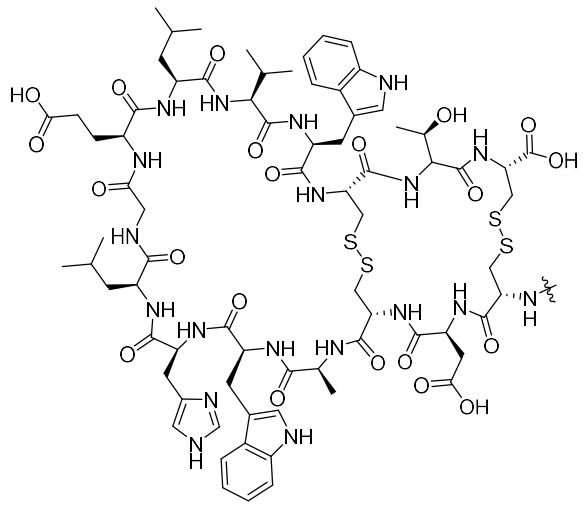
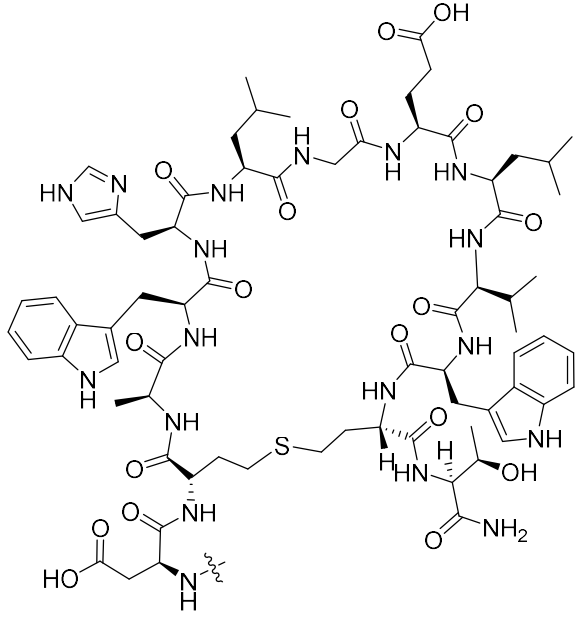
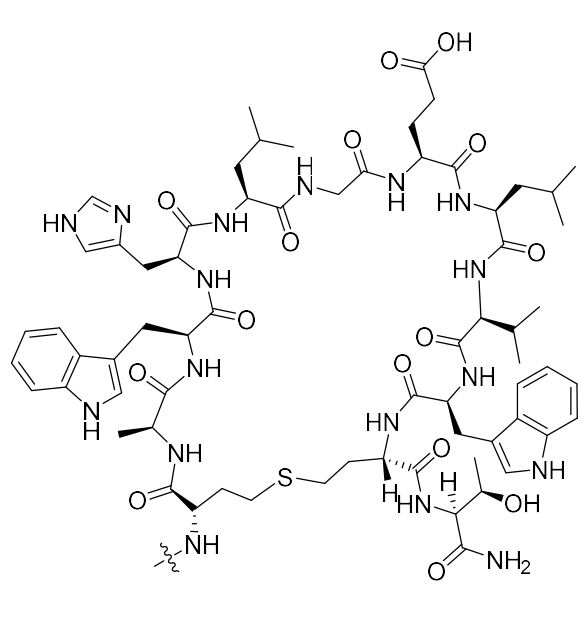
7. The combination of claim 1, wherein the antibody binding moiety (ABT) is or comprises a peptide unit that is or comprises CDCAWHLGELVWCTC, wherein the first and the last cysteines, and the two cysteines in the middle of the sequence, each independently and optionally form a disulfide bond.

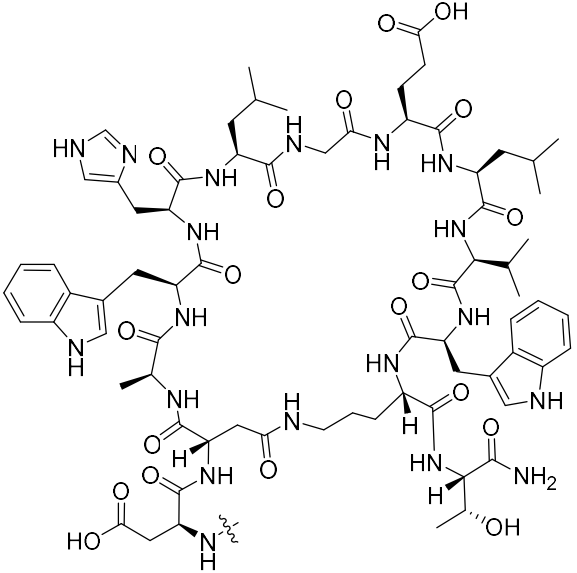
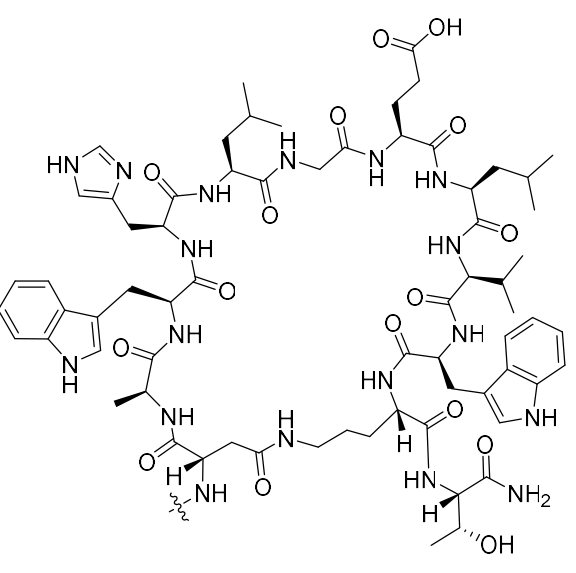
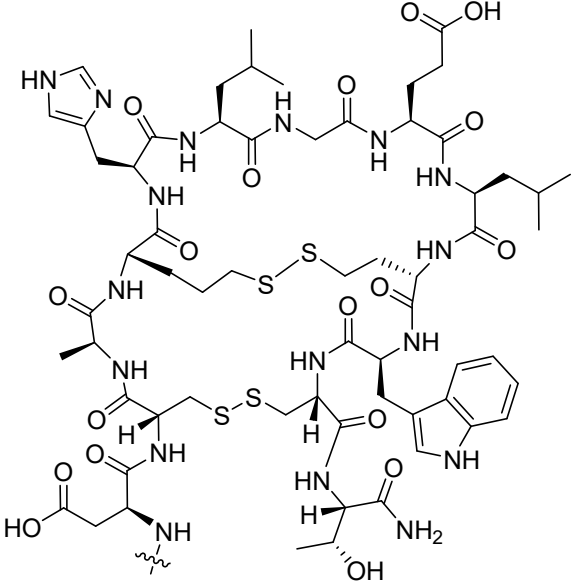
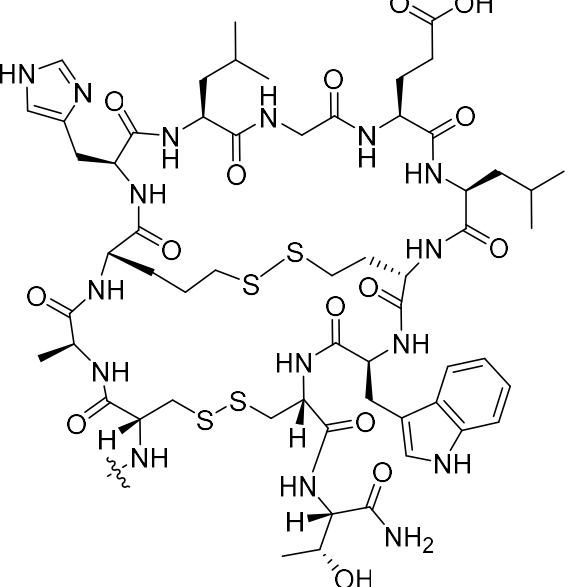
8. The combination of any one of claims 1 to 7, wherein the composition comprises an antibody or a fragment thereof.

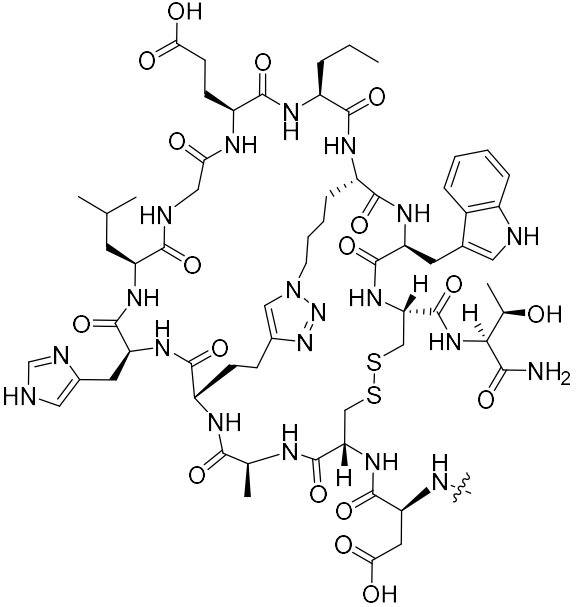
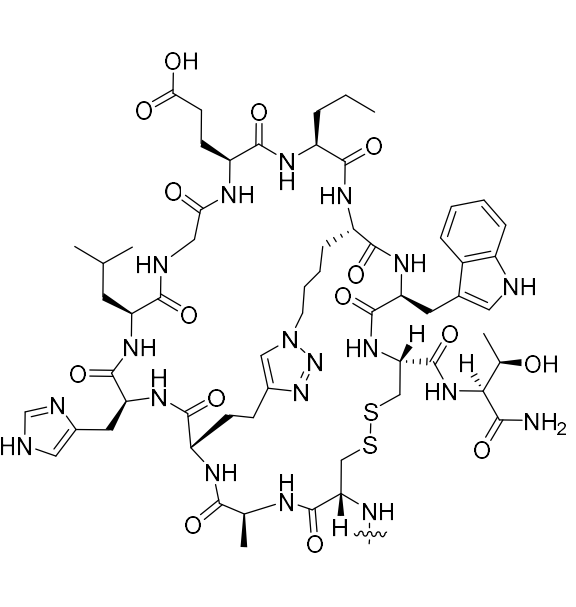
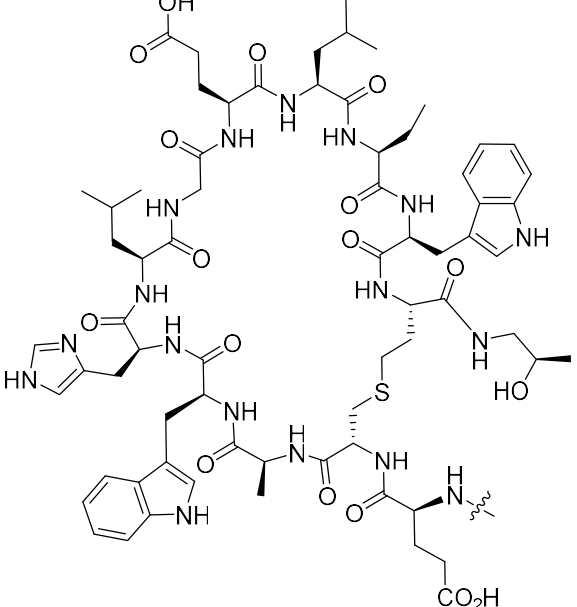
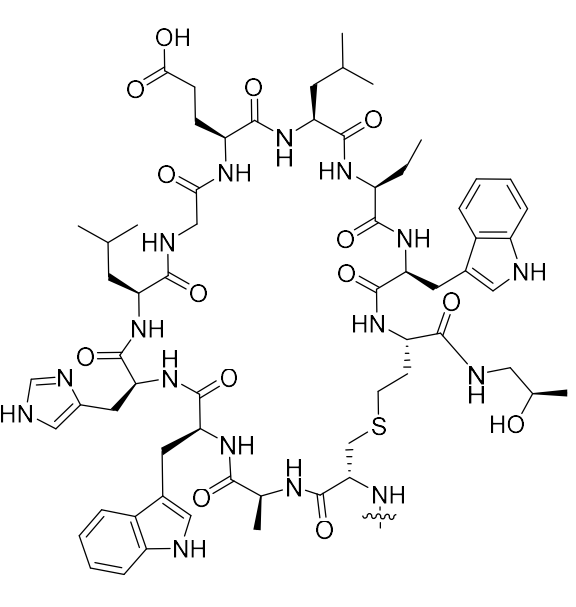
9. The combination of claim 1, wherein the ABT is or comprises any one of the following:

	
A-10	A-11
	
A-12	A-13

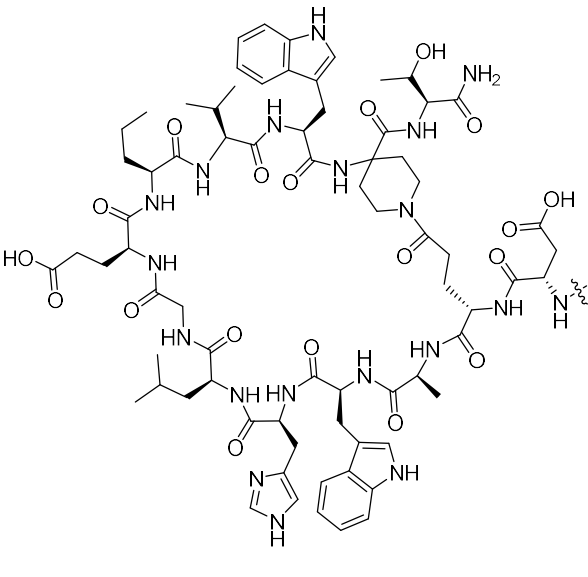
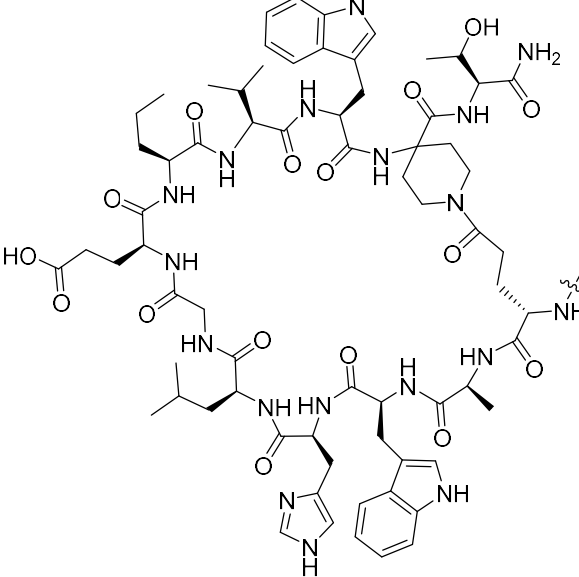
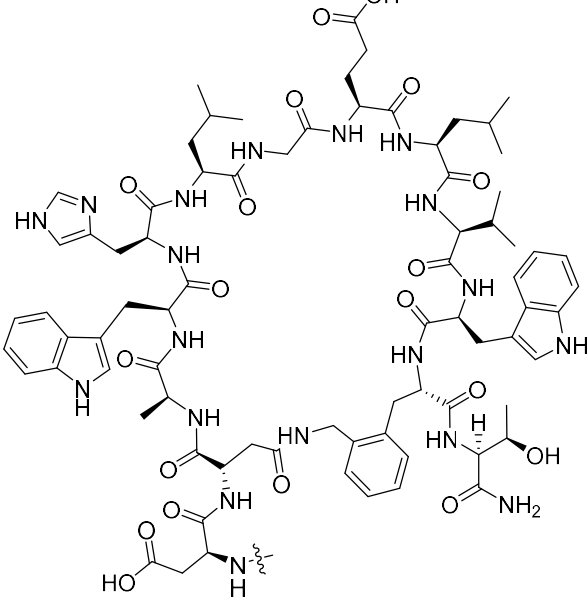
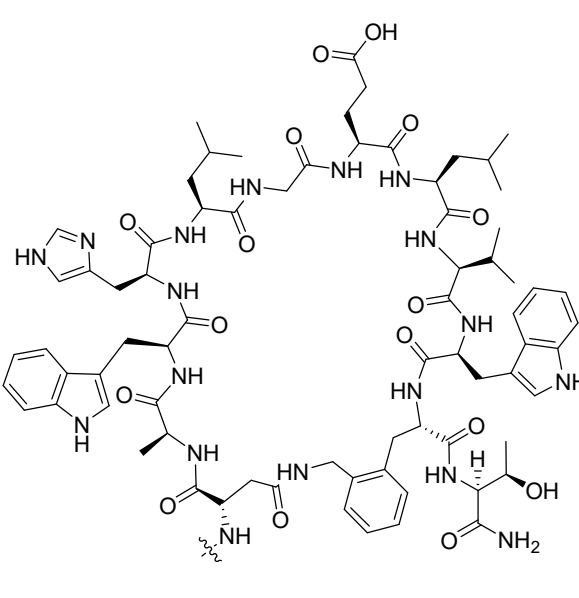
	
A-14	A-15
	
A-16	A-17

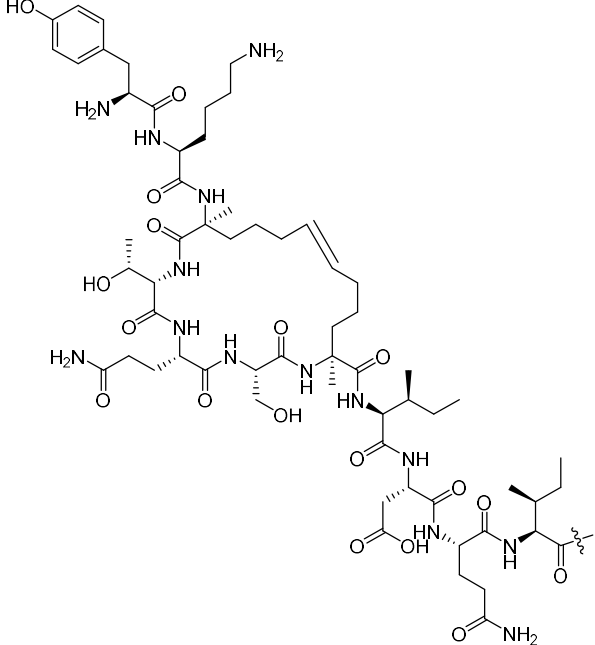
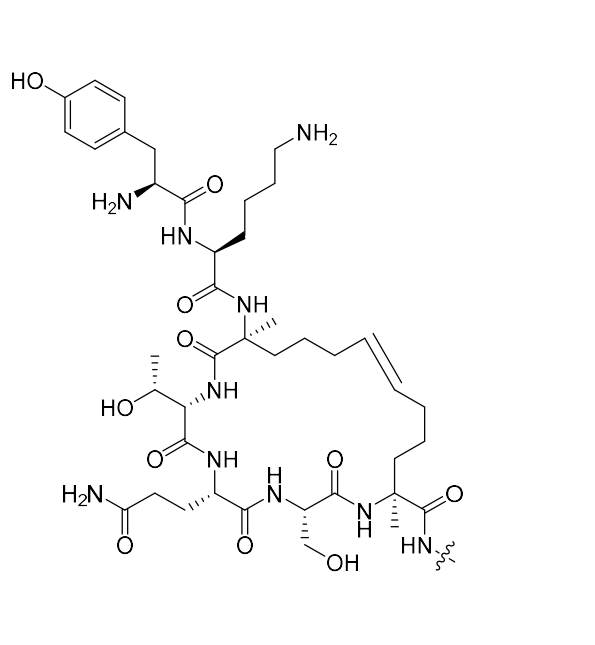
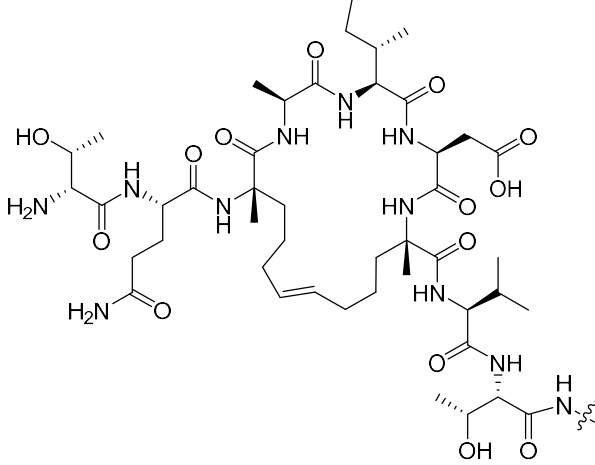
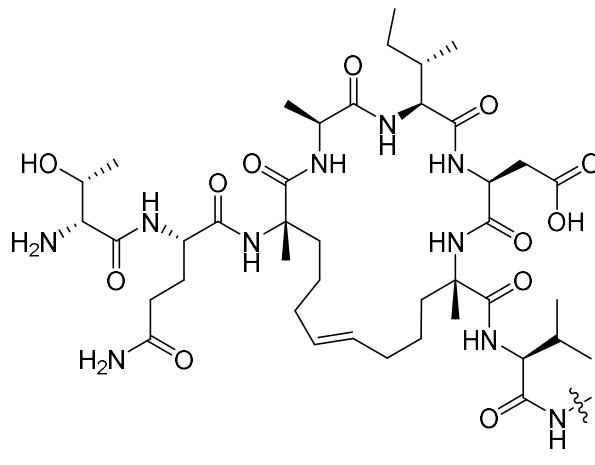
	
A-18	A-19
	
A-20	A-21

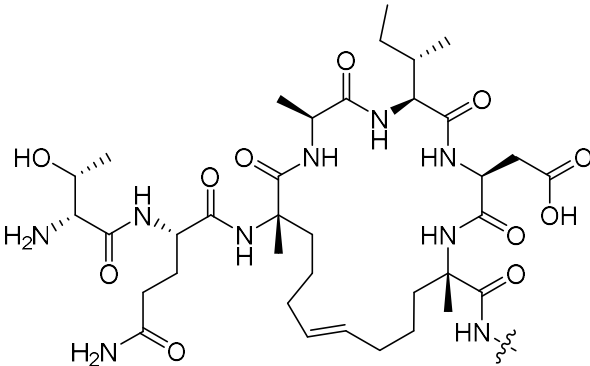
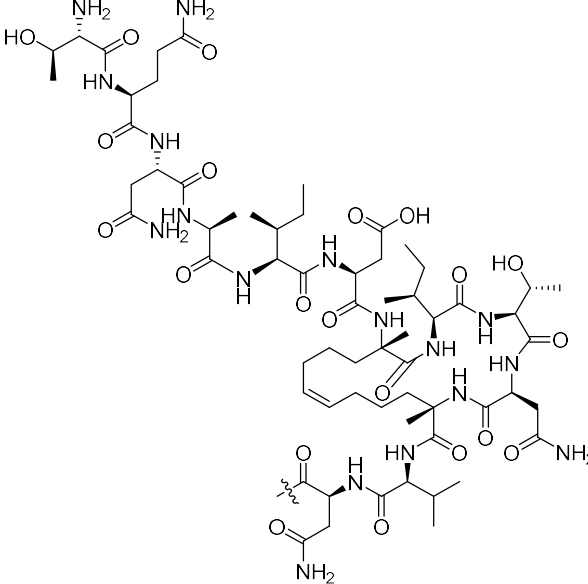
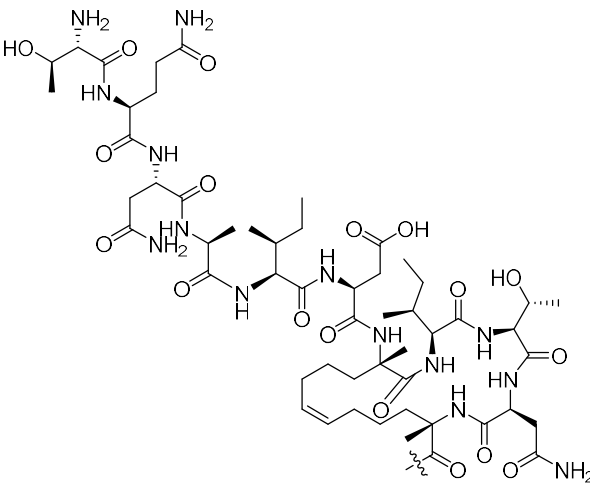
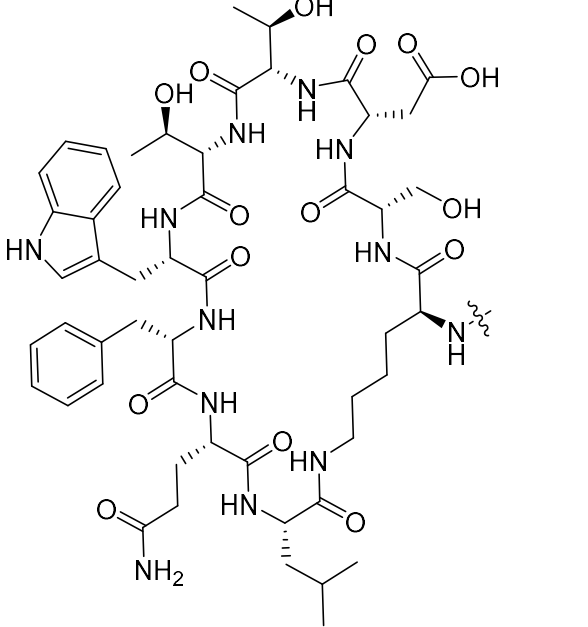
	
A-22	A-23
	
A-24	A-25

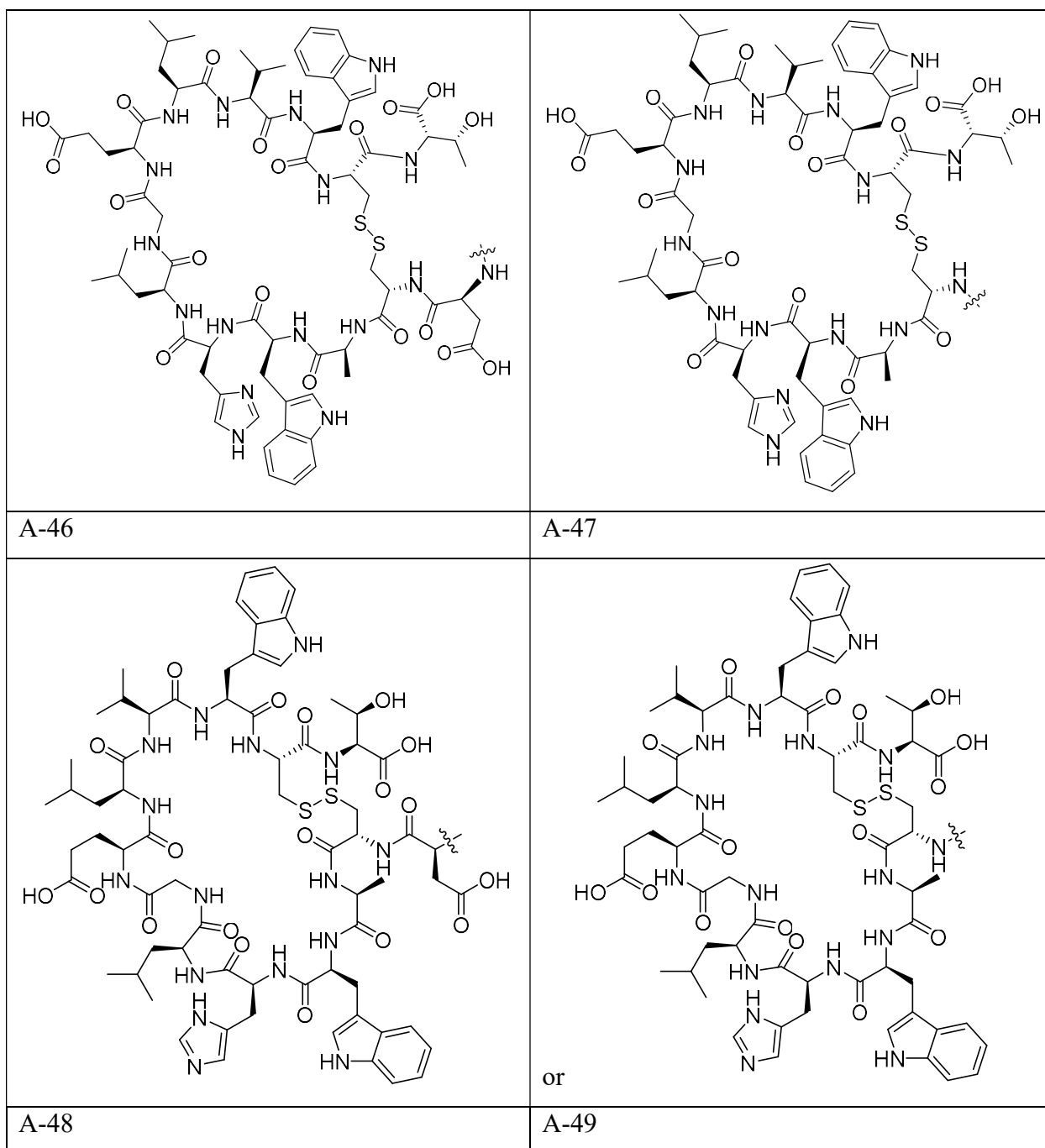
	
A-26	A-27
	
A-28	A-29

A-30	A-31
A-32	A-33

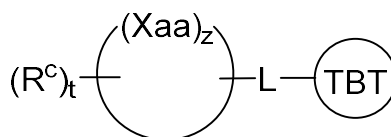
	
A-34	A-35
	
A-36	A-37

	
A-38	A-39
	
A-40	A-41

	
A-42	A-43
	
A-44	A-45



10. An anti-body recruiting molecule (ARM) of the formula:



or a salt thereof, wherein:

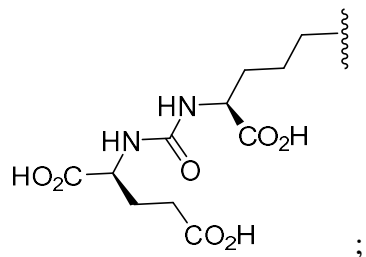
each Xaa is independently an amino acid residue;

t is 0-50;

z is 1-50;

L is a linker moiety;

TBT is a target binding moiety that is;



each R^c is independently -L^a-R';

each L^a is independently a covalent bond, or an optionally substituted bivalent group selected C₁-C₂₀ aliphatic or C₁-C₂₀ heteroaliphatic having 1-5 heteroatoms, wherein one or more methylene units of the group are optionally and independently replaced with -C(R')₂-, -Cy-, -O-, -S-, -S-S-, -N(R')-, -C(O)-, -C(S)-, -C(NR')-, -C(O)N(R')-, -N(R')C(O)N(R')-, -N(R')C(O)O-, -S(O)-, -S(O)₂-, -S(O)₂N(R')-, -C(O)S-, or -C(O)O-;

each -Cy- is independently an optionally substituted bivalent group selected from a C₃₋₂₀ cycloaliphatic ring, a C₆₋₂₀ aryl ring, a 5-20 membered heteroaryl ring having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, and a 3-20 membered heterocyclyl ring having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon;

each R' is independently -R, -C(O)R, -CO₂R, or -SO₂R;

each R is independently -H, or an optionally substituted group selected from C₁₋₃₀ aliphatic, C₁₋₃₀ heteroaliphatic having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, C₆₋₃₀ aryl, C₆₋₃₀ arylaliphatic, C₆₋₃₀ arylheteroaliphatic having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, 5-30 membered heteroaryl having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, and 3-30 membered heterocyclyl having 1-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon, or

two R groups are optionally and independently taken together to form a covalent bond,

or:

two or more R groups on the same atom are optionally and independently taken together with the atom to form an optionally substituted, 3-30 membered, monocyclic, bicyclic or polycyclic ring having, in addition to the atom, 0-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon; or

two or more R groups on two or more atoms are optionally and independently taken together with their intervening atoms to form an optionally substituted, 3-30 membered, monocyclic, bicyclic or polycyclic ring having, in addition to the intervening atoms, 0-10 heteroatoms independently selected from oxygen, nitrogen, sulfur, phosphorus and silicon.

11. The ARM of claim 10, wherein $-(Xaa)_z-$ is or comprises

$-X^3X^4X^5X^6X^7X^8X^9X^{10}X^{11}X^{12}-$, wherein:

each of X^3 , X^4 , X^5 , X^6 , X^7 , X^8 , X^9 , X^{10} , X^{11} , and X^{12} is independently an amino acid residue;

X^6 is Xaa^A or Xaa^P ;

X^9 is Xaa^N ; and

X^{12} is Xaa^A or Xaa^P ,

wherein each Xaa^A is independently an amino acid residue whose side chain comprises an aromatic group, each Xaa^P is independently an amino acid residue whose side chain comprises a positively charged side chain, and each Xaa^N is independently an amino acid residue whose side chain comprises a negatively charged side chain.

12. The ARM of claim 10 or 11, wherein $-(Xaa)_z-$ is or comprises

$-X^3X^4X^5X^6X^7X^8X^9X^{10}X^{11}X^{12}-$, wherein:

at least two amino acid residues are connected through one or more linkages L^b ;

L^b is an optionally substituted bivalent group selected C_1 - C_{20} aliphatic or C_1 - C_{20} heteroaliphatic having 1-5 heteroatoms, wherein one or more methylene units of the group are optionally and independently replaced with $-C(R')_2-$, $-Cy-$, $-O-$, $-S-$, $-S-S-$, $-N(R')-$, $-C(O)-$, $-C(S)-$, $-C(NR')-$, $-C(O)N(R')-$, $-N(R')C(O)N(R')-$, $-N(R')C(O)O-$, $-S(O)-$, $-S(O)_2-$, $-S(O)_2N(R')-$, $-C(O)S-$, or $-C(O)O-$, wherein L^b is bonded to a backbone atom of one amino acid residue and a backbone atom of another amino acid residue, and comprises no backbone atoms;

X⁶ is Xaa^A or Xaa^P;

X⁹ is Xaa^N;

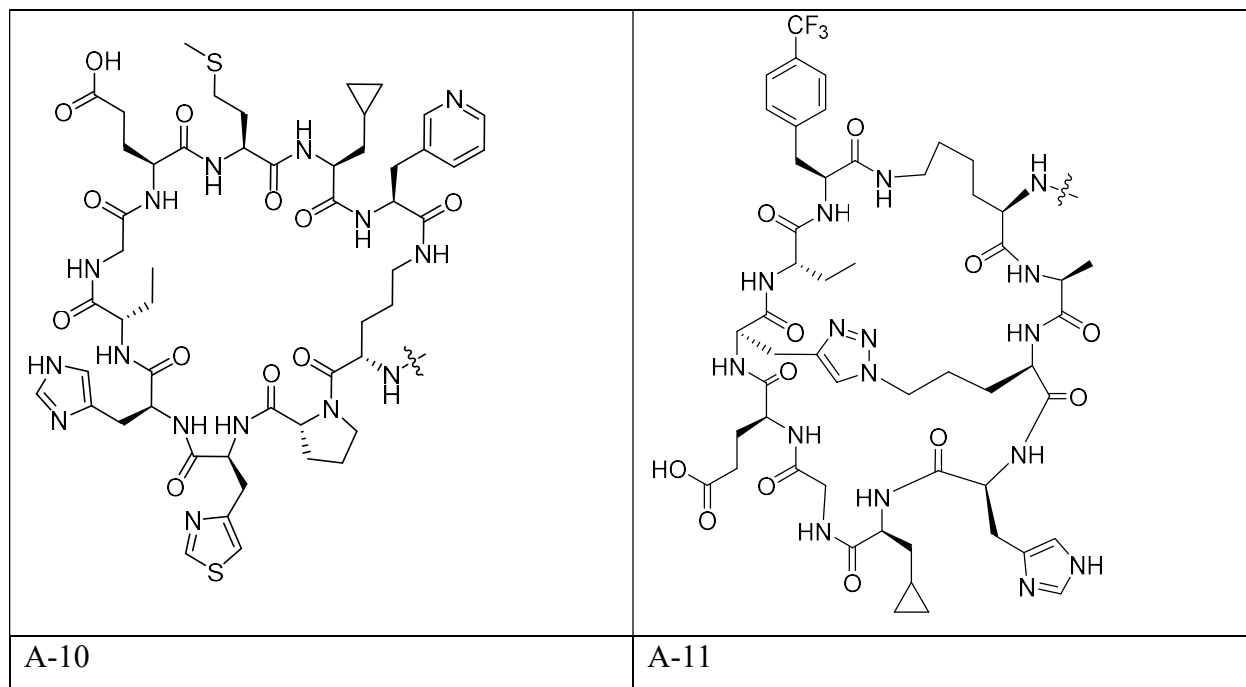
X¹² is Xaa^A or Xaa^P; and

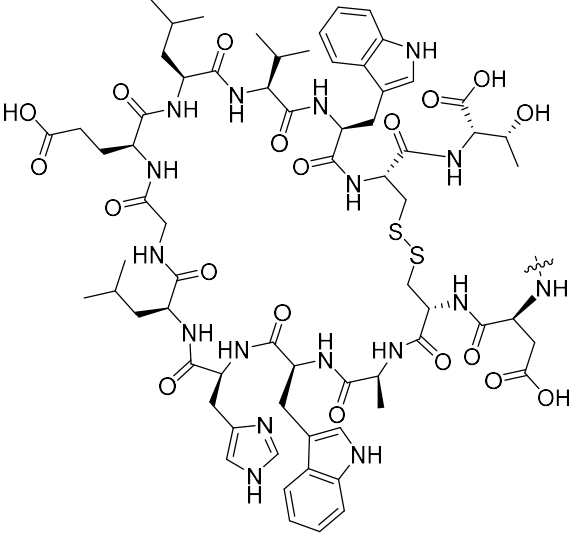
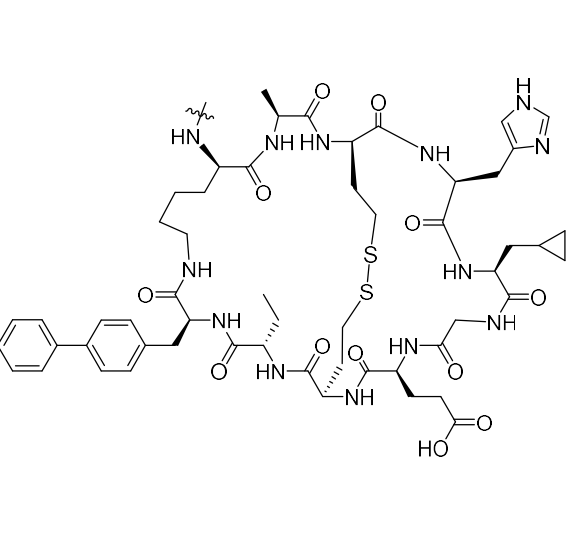
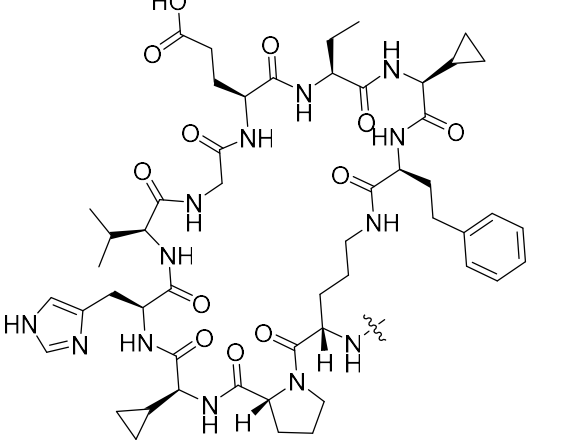
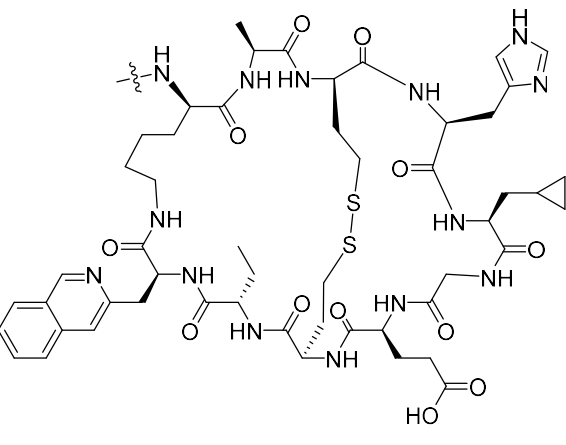
wherein each Xaa^A is independently an amino acid residue whose side chain comprises an aromatic group, each Xaa^P is independently an amino acid residue whose side chain comprises a positively charged side chain, and each Xaa^N is independently an amino acid residue whose side chain comprises a negatively charged side chain.

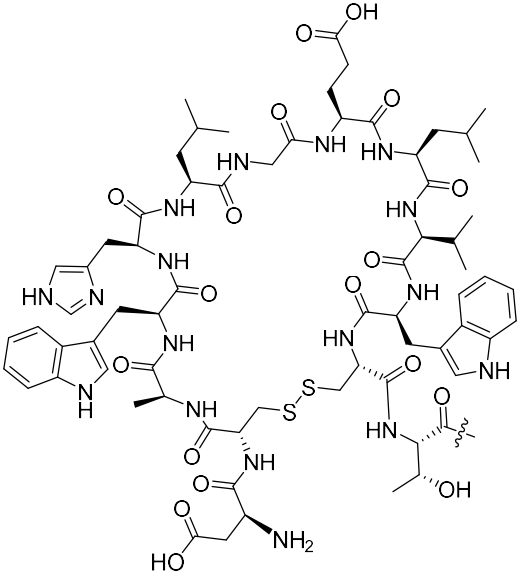
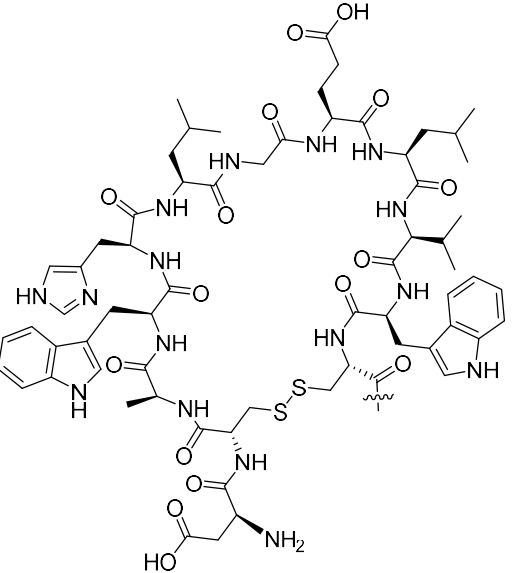
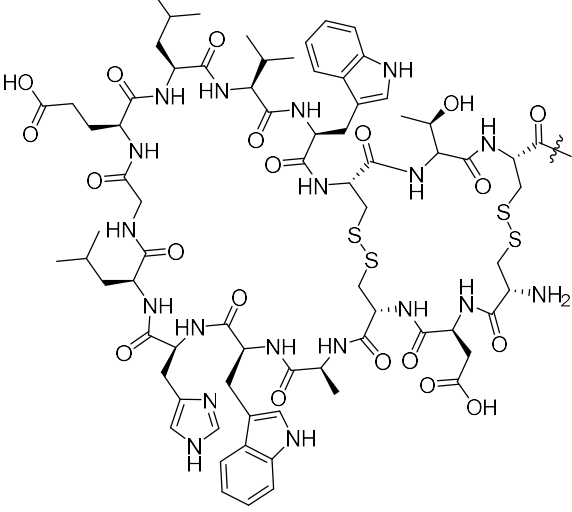
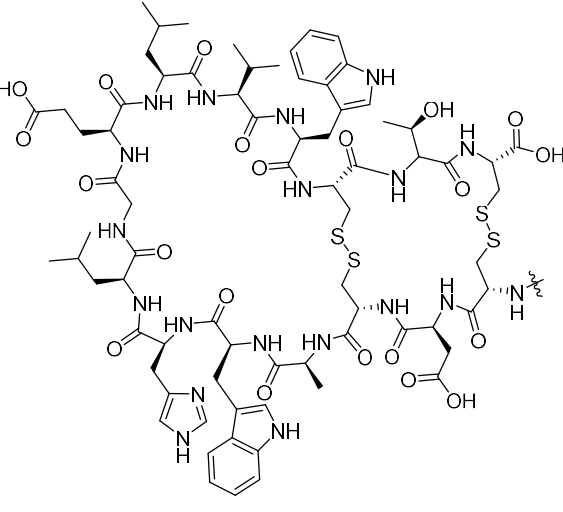
13. The ARM of any one of claims 10 to 12, wherein each of X⁴, X⁷, and X¹¹ is independently an amino acid residue with a hydrophobic side chain (“hydrophobic amino acid residue”, Xaa^H).

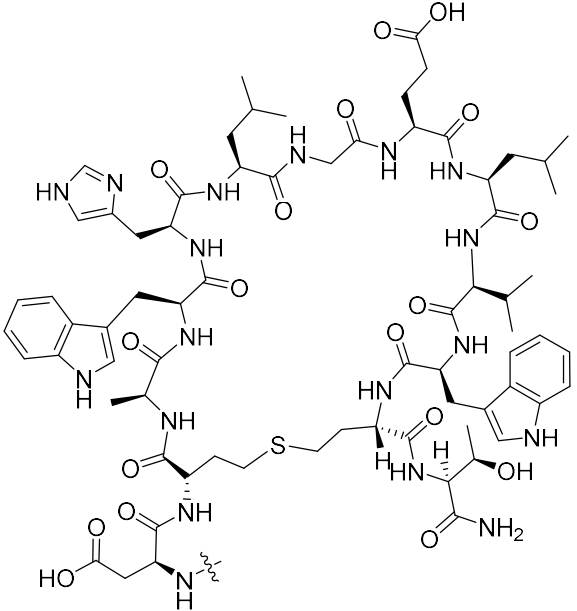
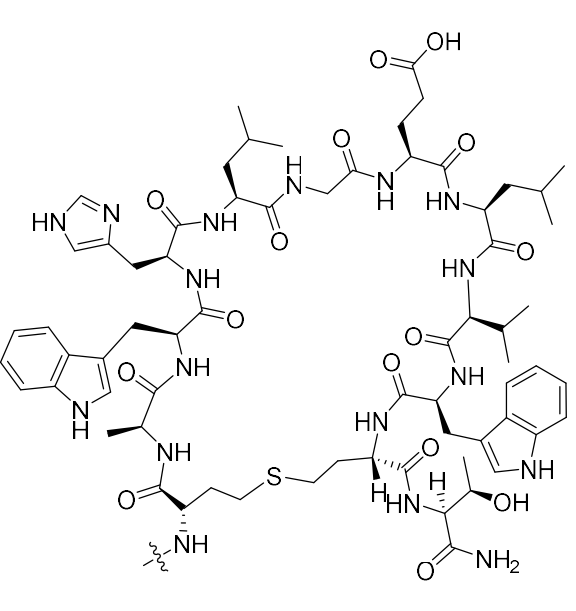
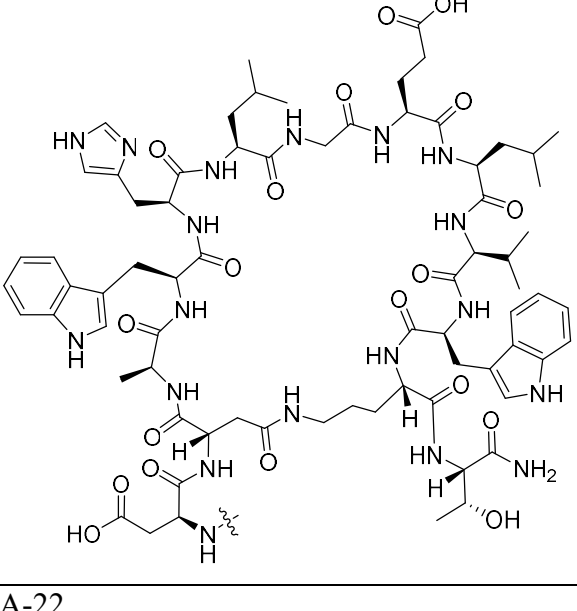
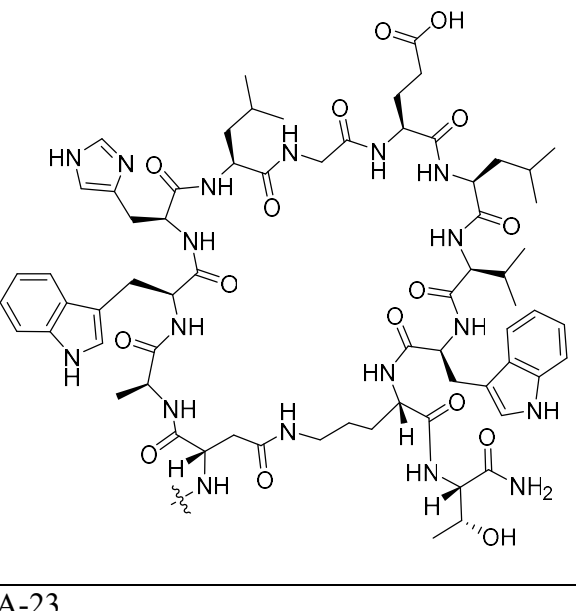
14. The ARM of claim 10 or 11, wherein (Xaa)_z is or comprises DCAWHLGELVWCT, wherein the two cysteine residues optionally form a disulfide bond.

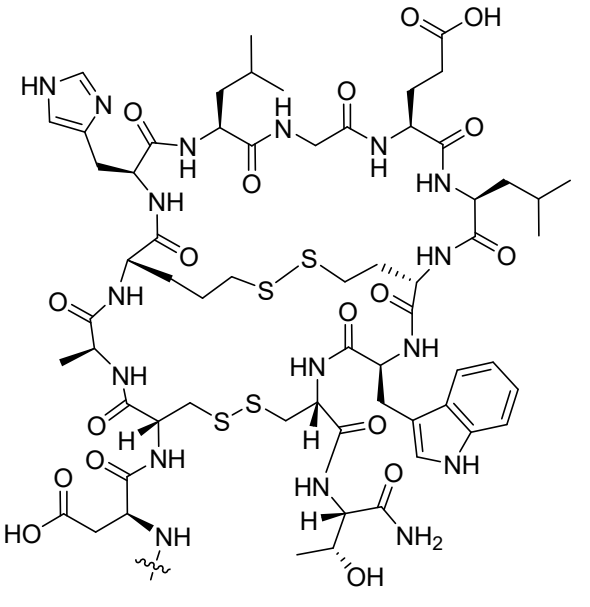
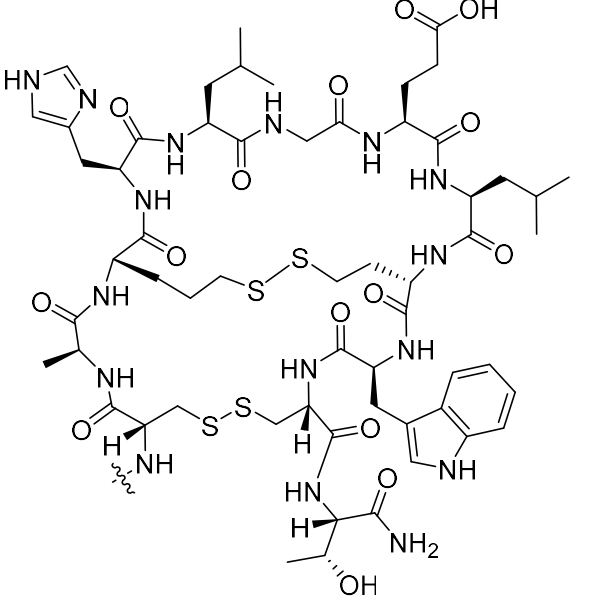
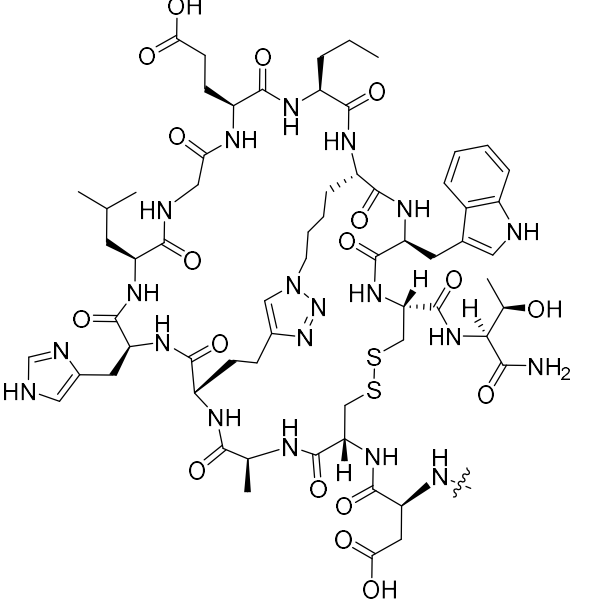
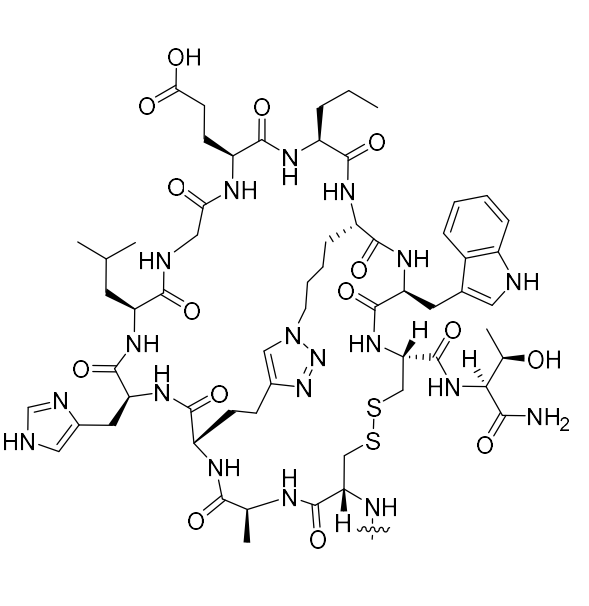
15. An anti-body recruiting molecule (ARM), of claim 10 or 11, wherein (Xaa)_z is or comprises any one of

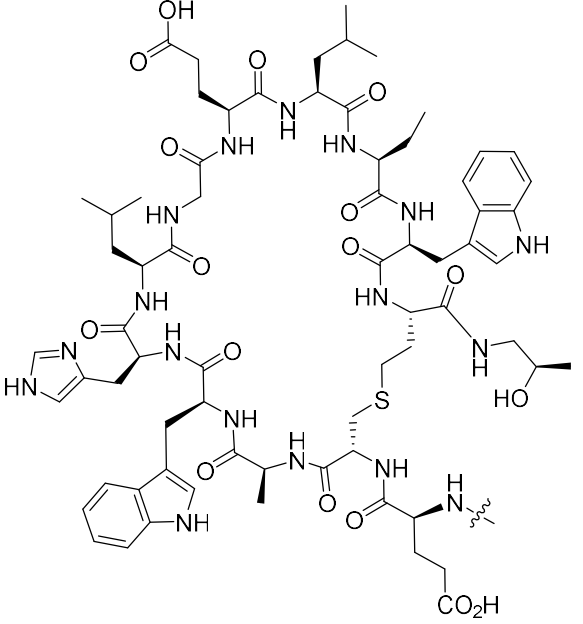
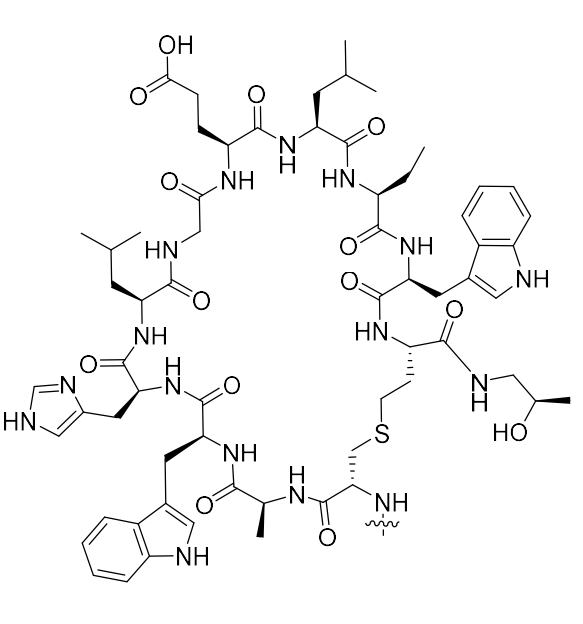
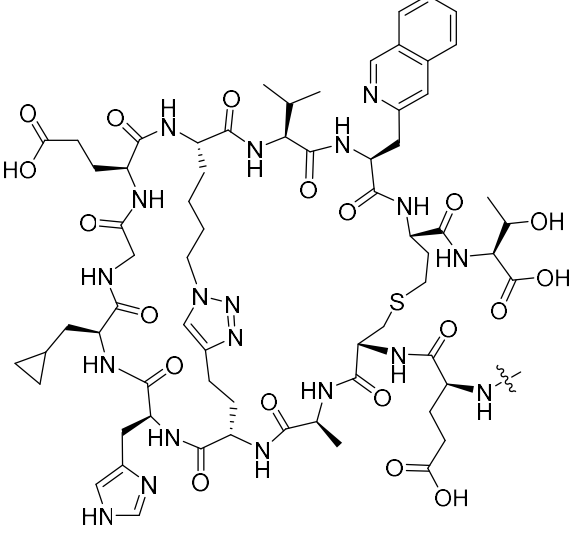
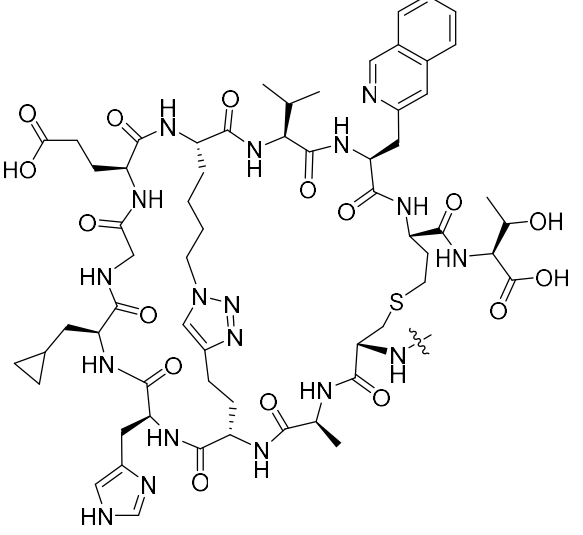


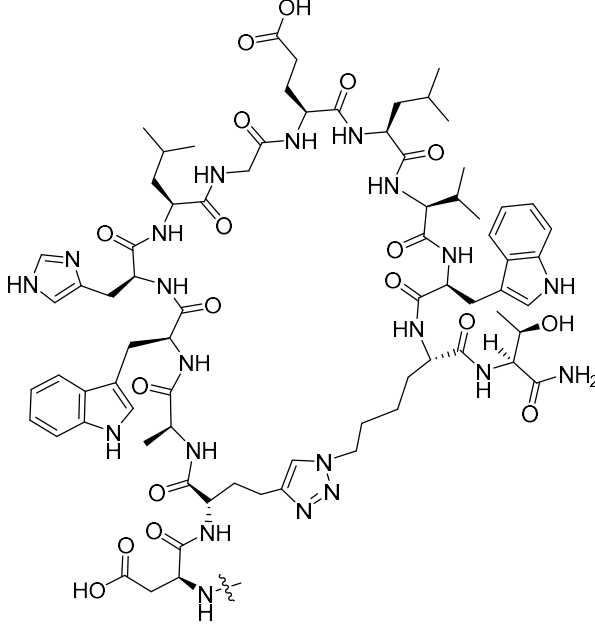
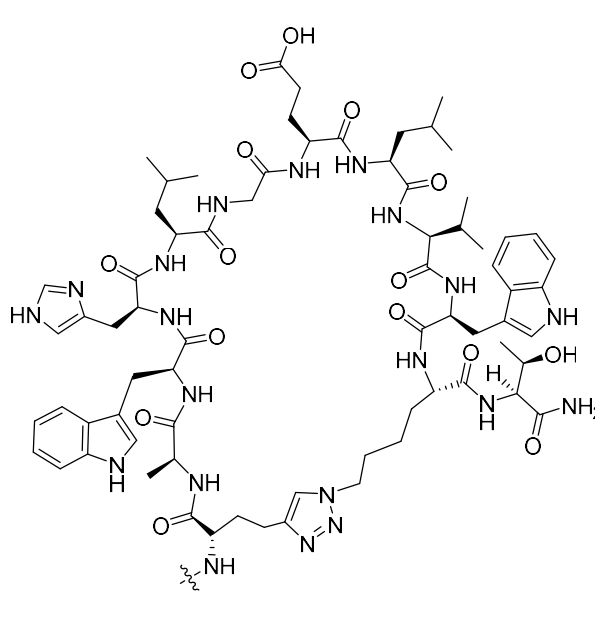
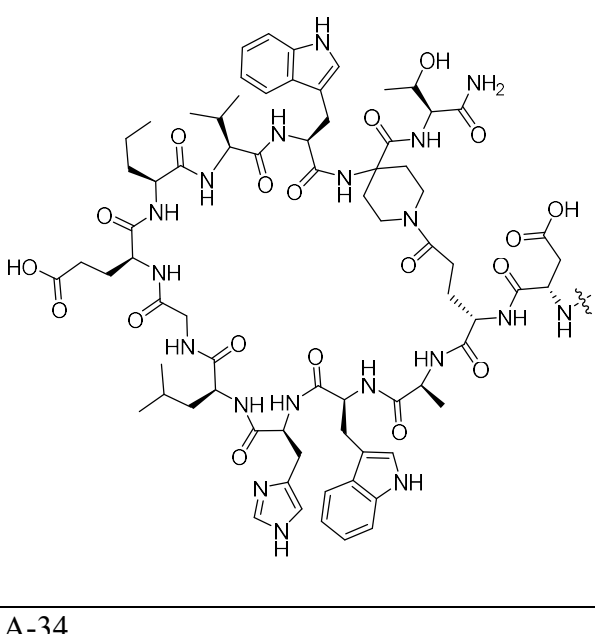
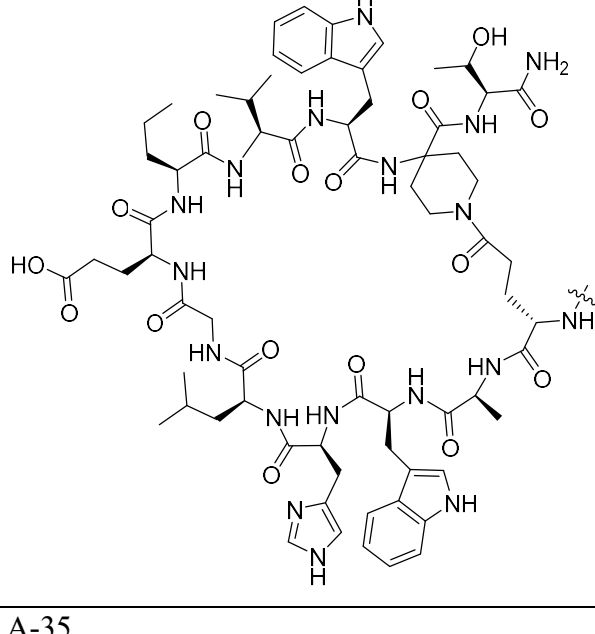
	
<p>A-12</p>	<p>A-13</p>
	
<p>A-14</p>	<p>A-15</p>

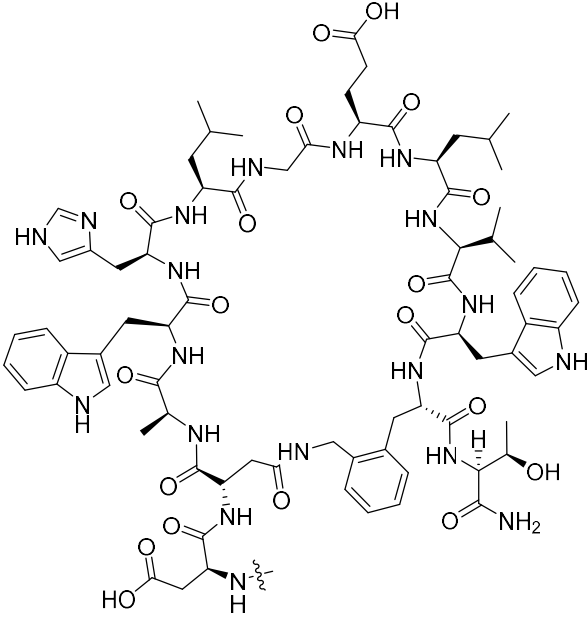
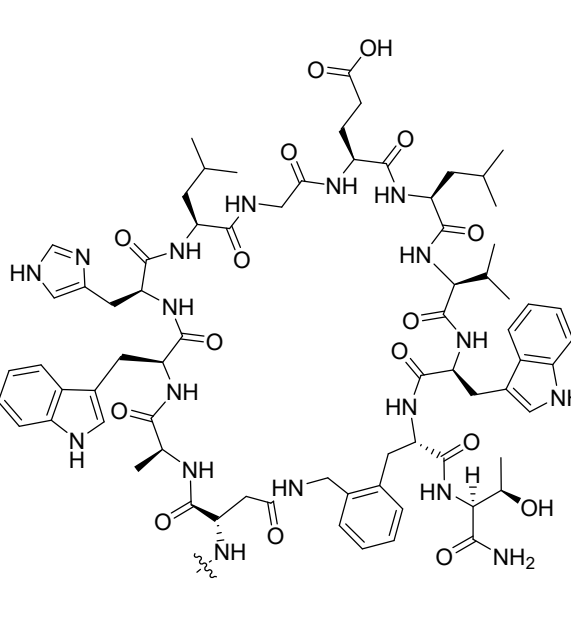
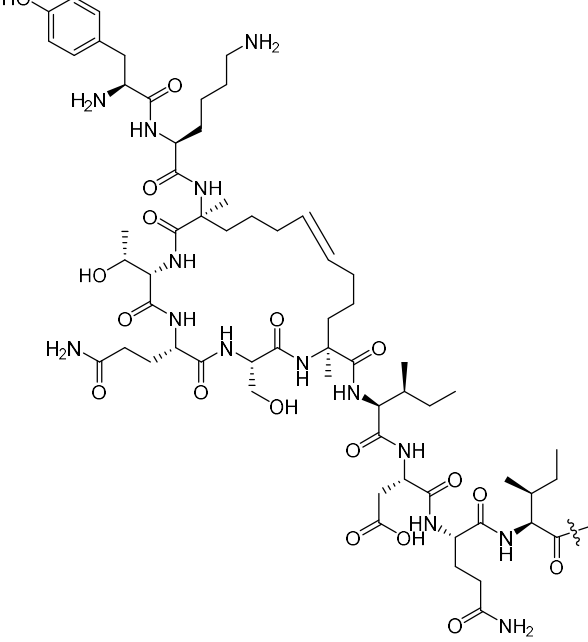
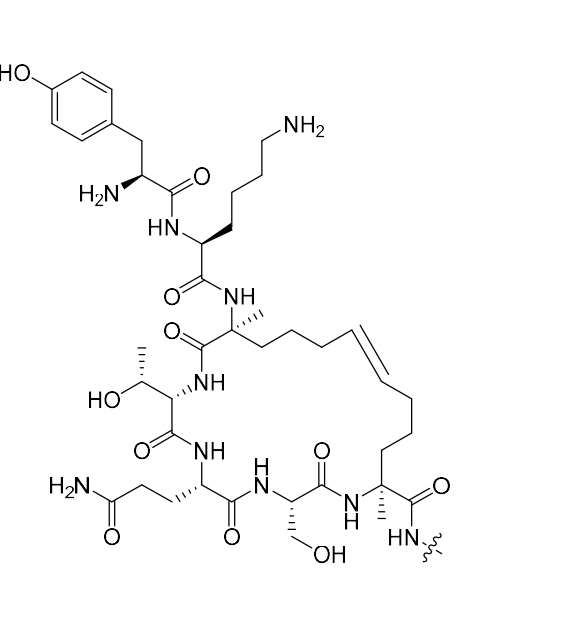
	
A-16	A-17
	
A-18	A-19

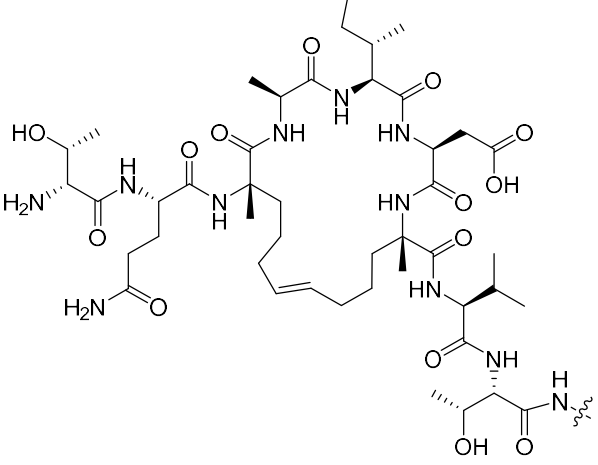
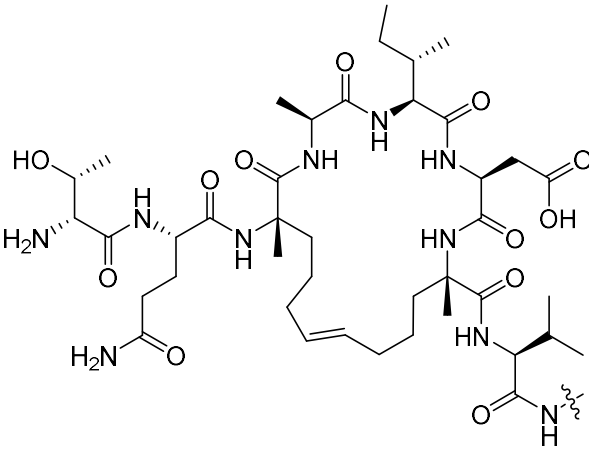
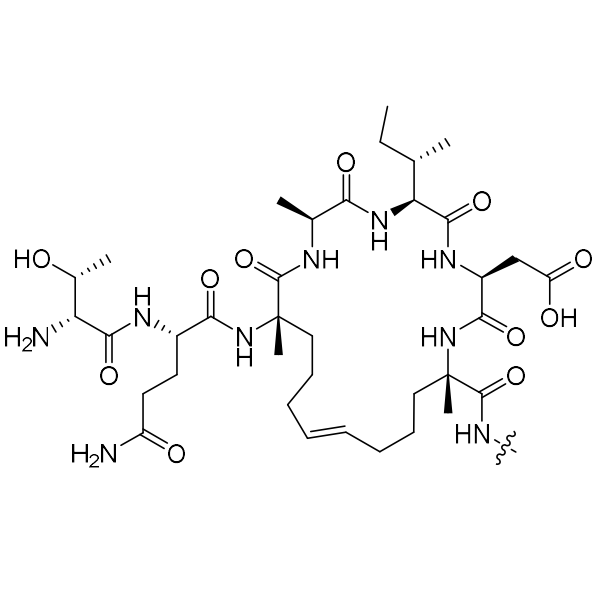
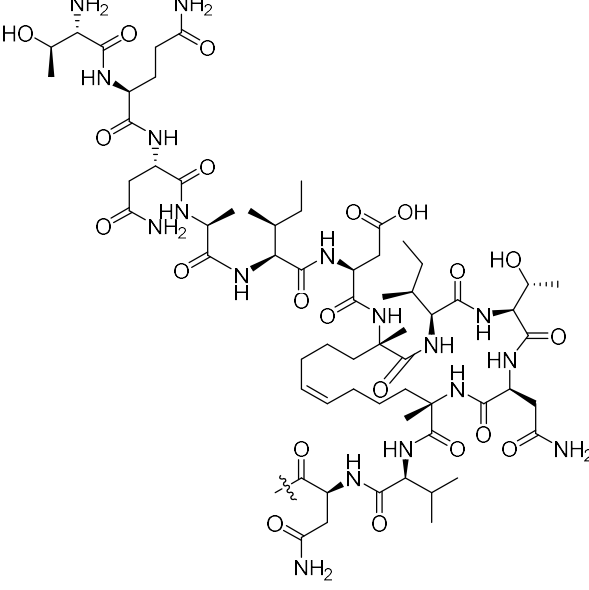
	
A-20	A-21
	
A-22	A-23

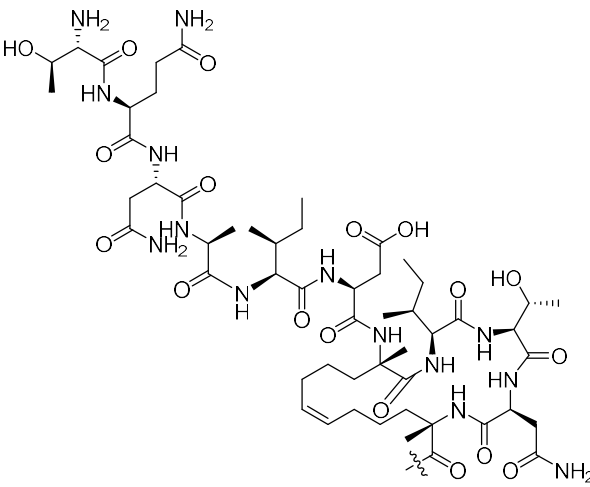
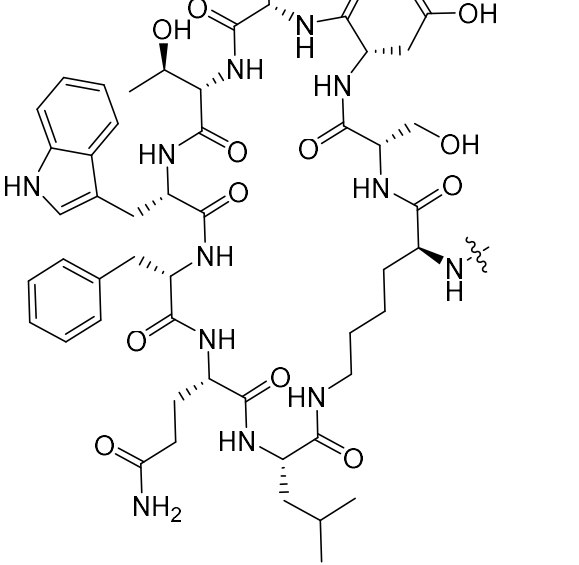
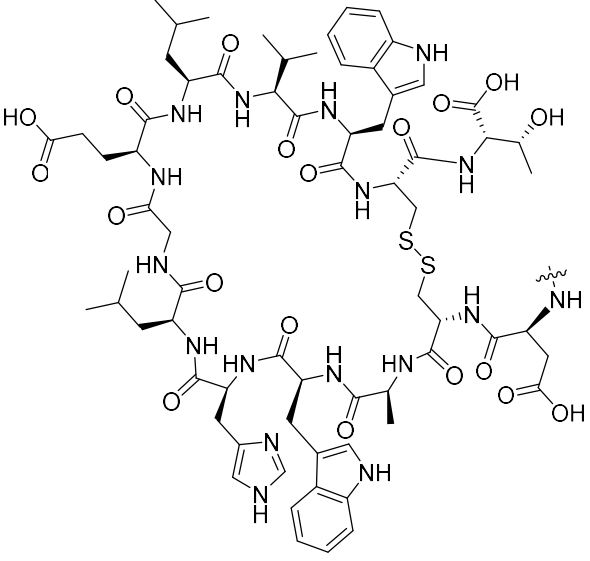
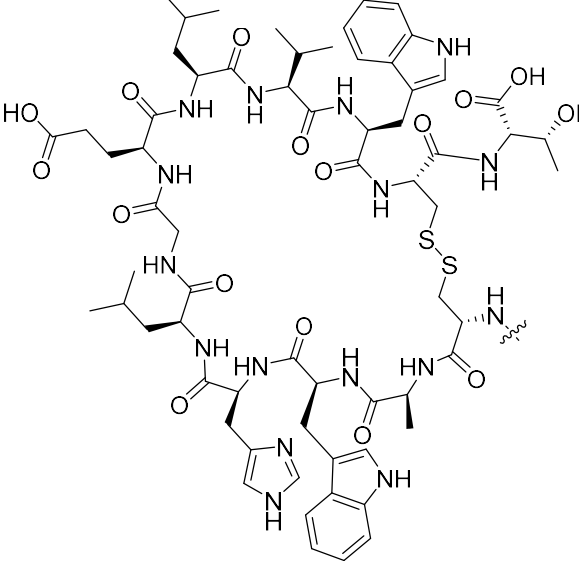
	
A-24	A-25
	
A-26	A-27

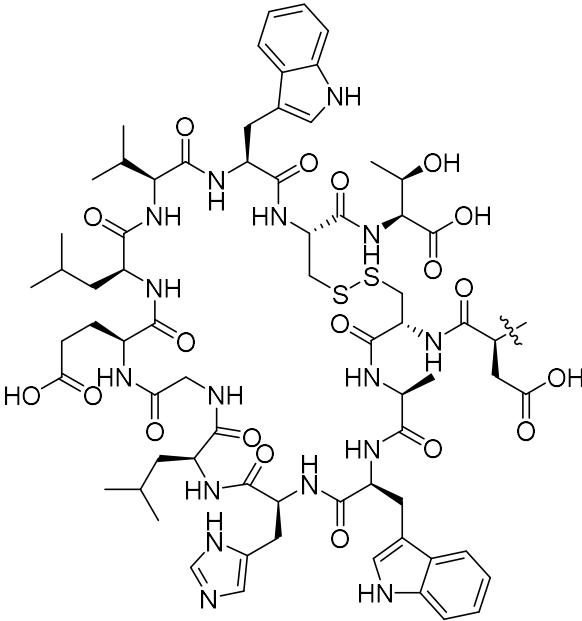
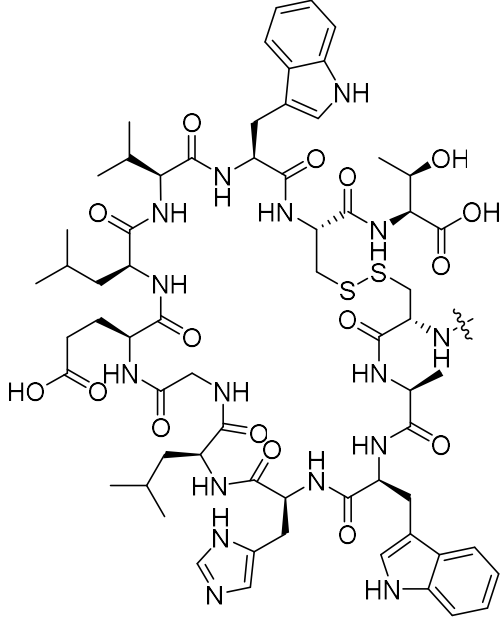
	
A-28	A-29
	
A-30	A-31

	
A-32	A-33
	
A-34	A-35

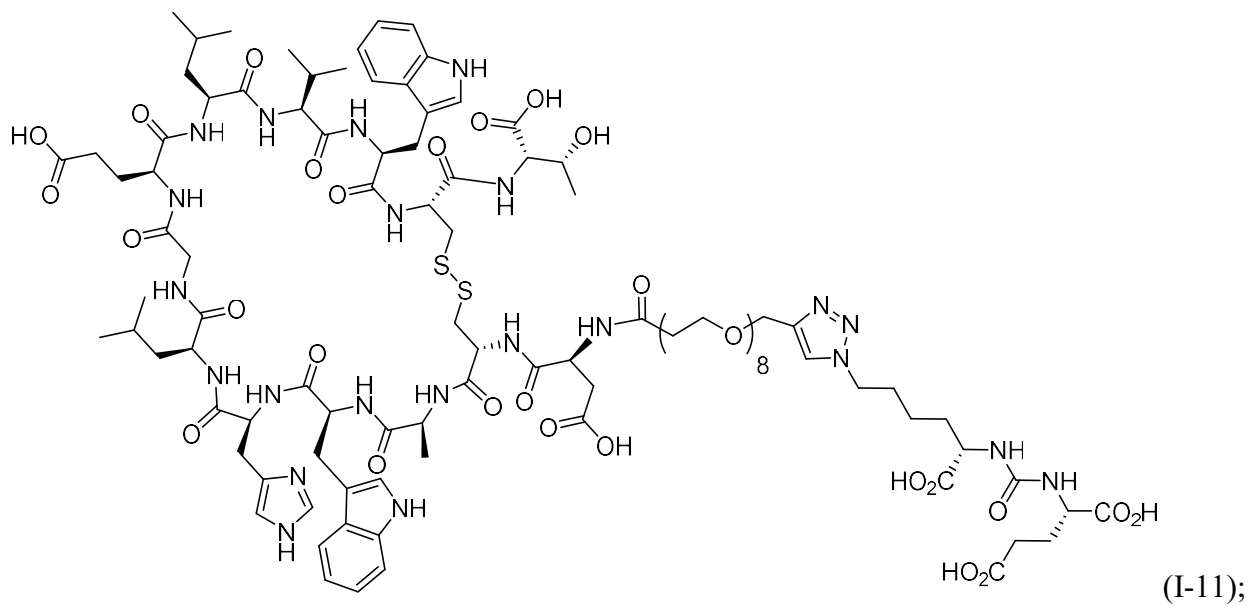
	
<p>A-36</p>	<p>A-37</p>
	
<p>A-38</p>	<p>A-39</p>

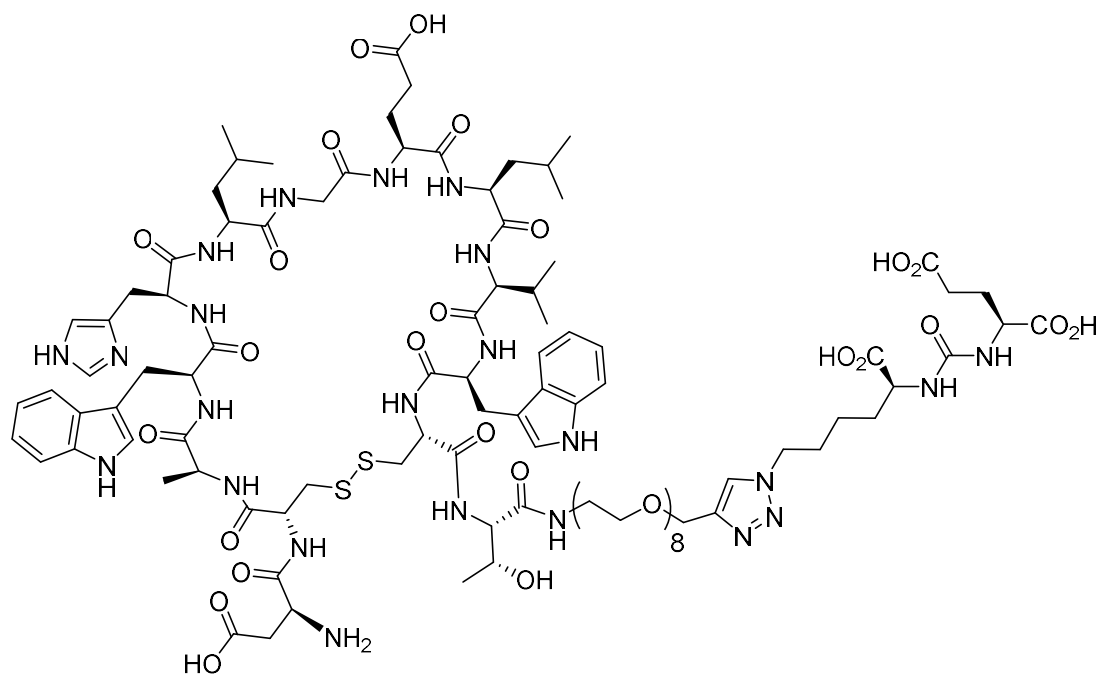
	
A-40	A-41
	
A-42	A-43

	
A-44	A-45
	
A-46	A-47

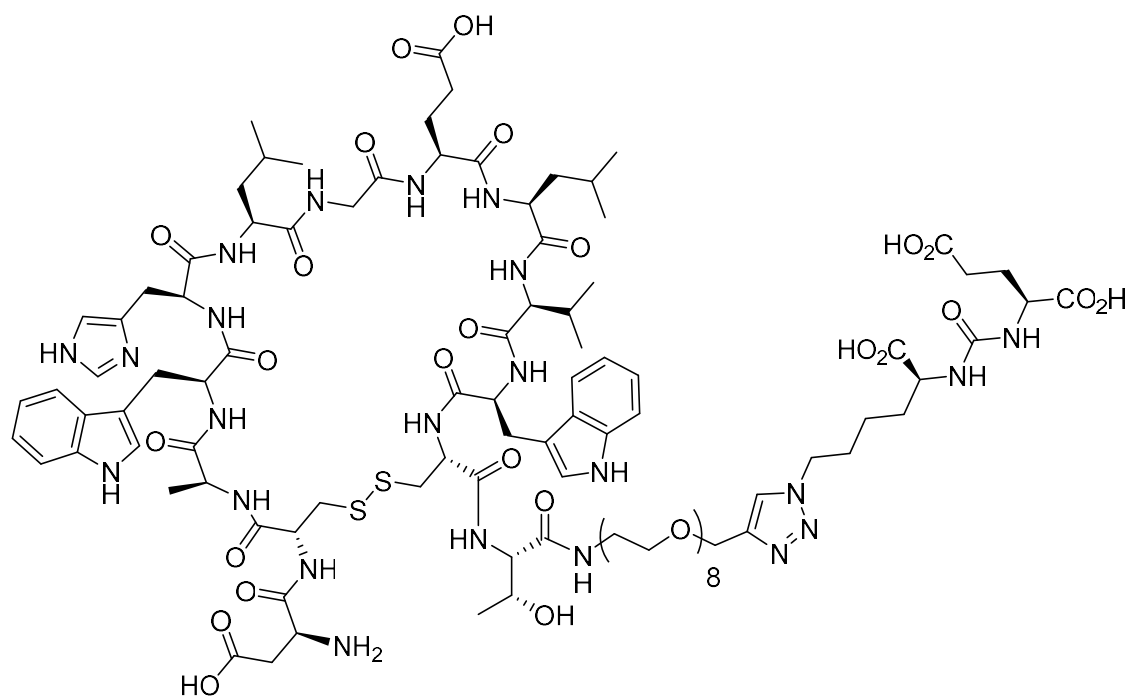
	
A-48	A-49

16. An anti-body recruiting molecule (ARM), selected from:



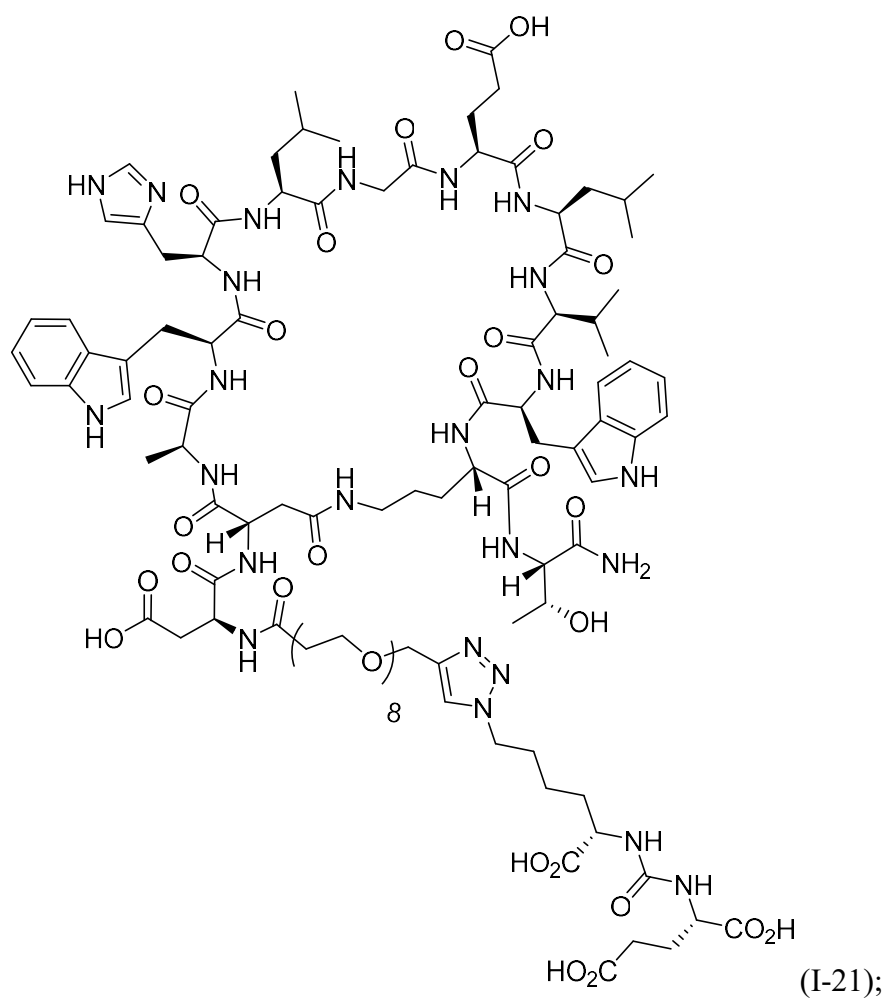


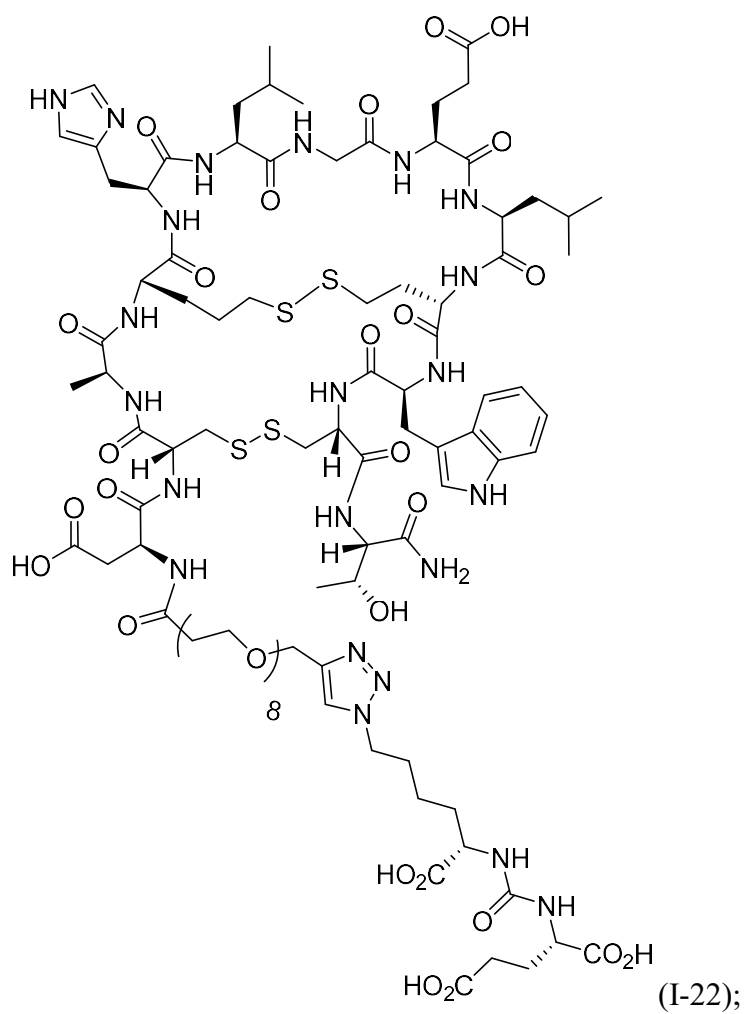
(I-15);

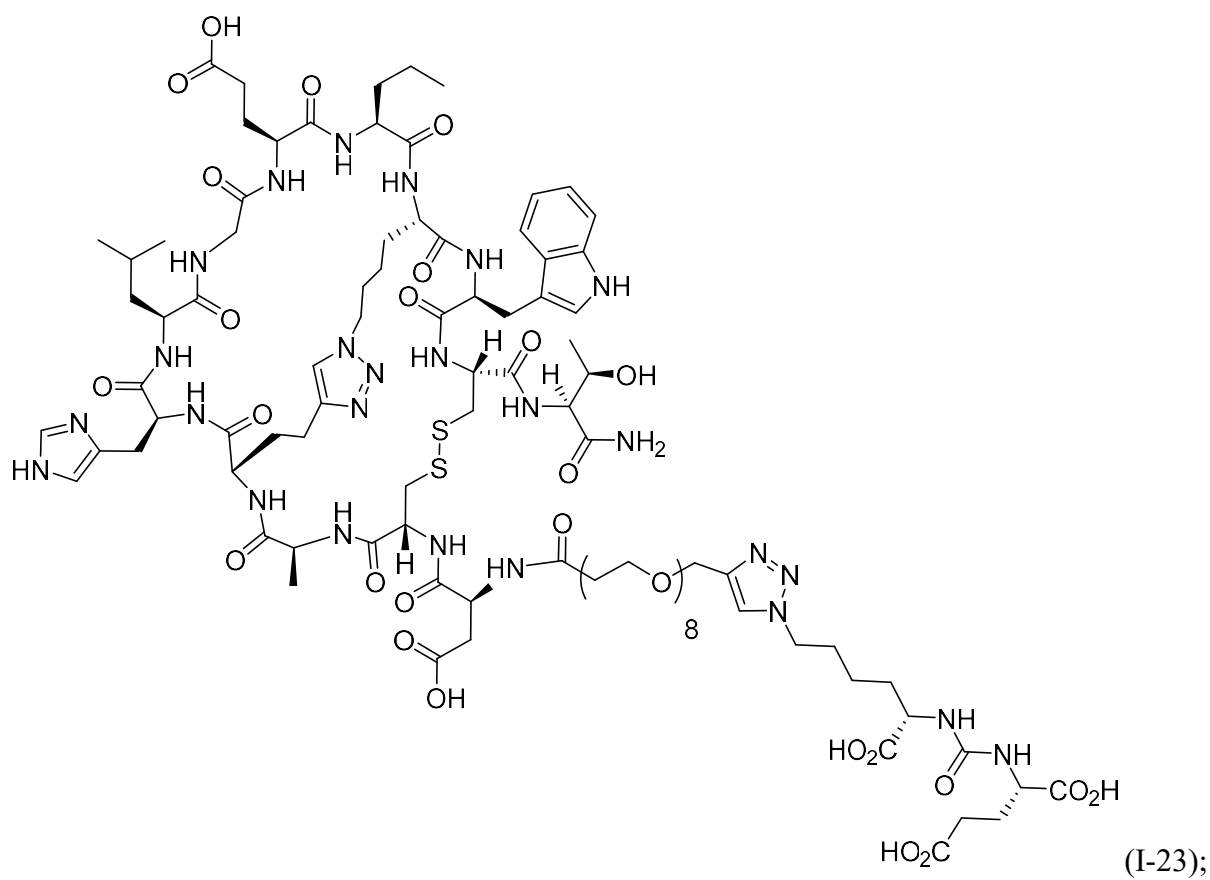
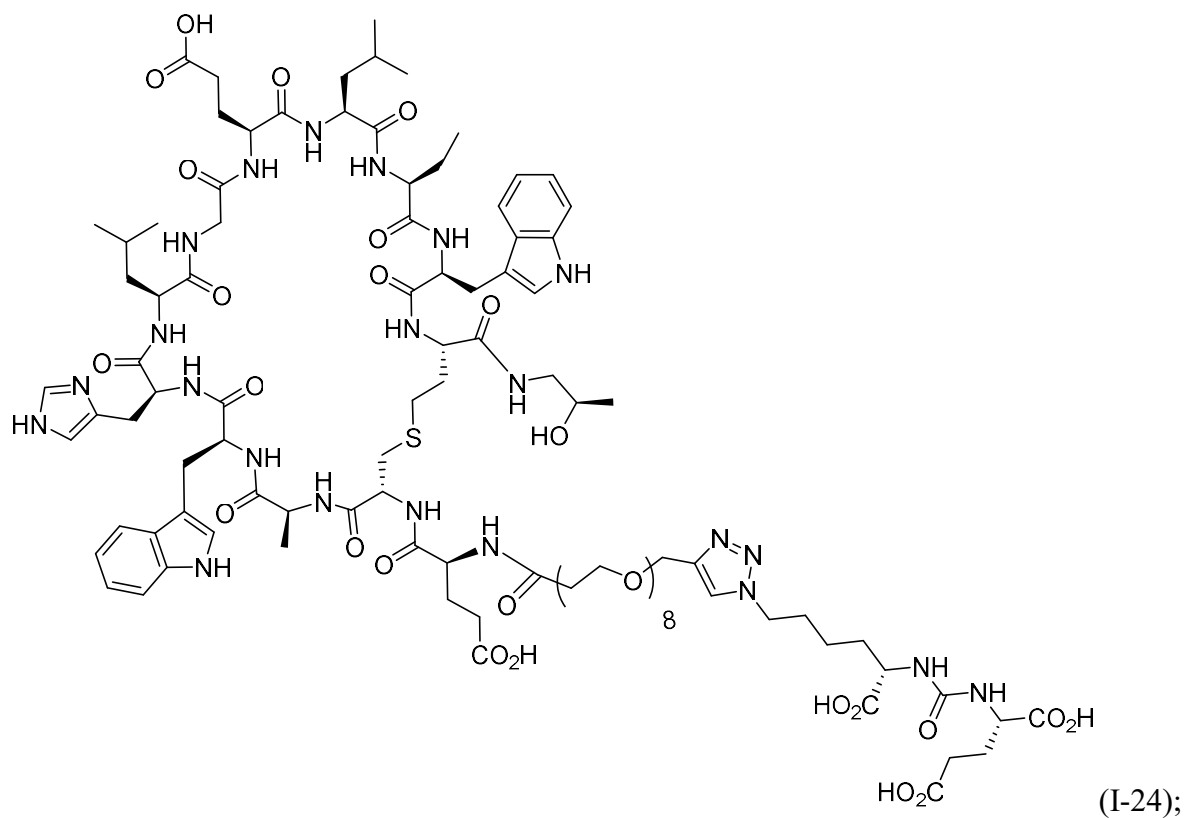


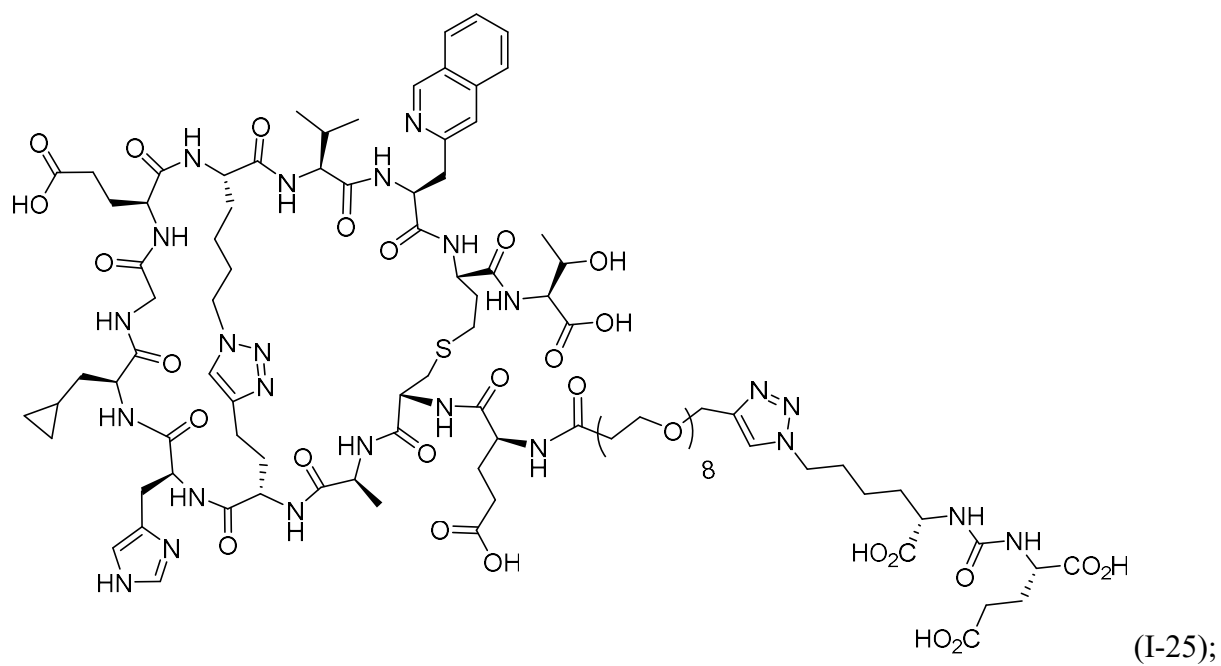
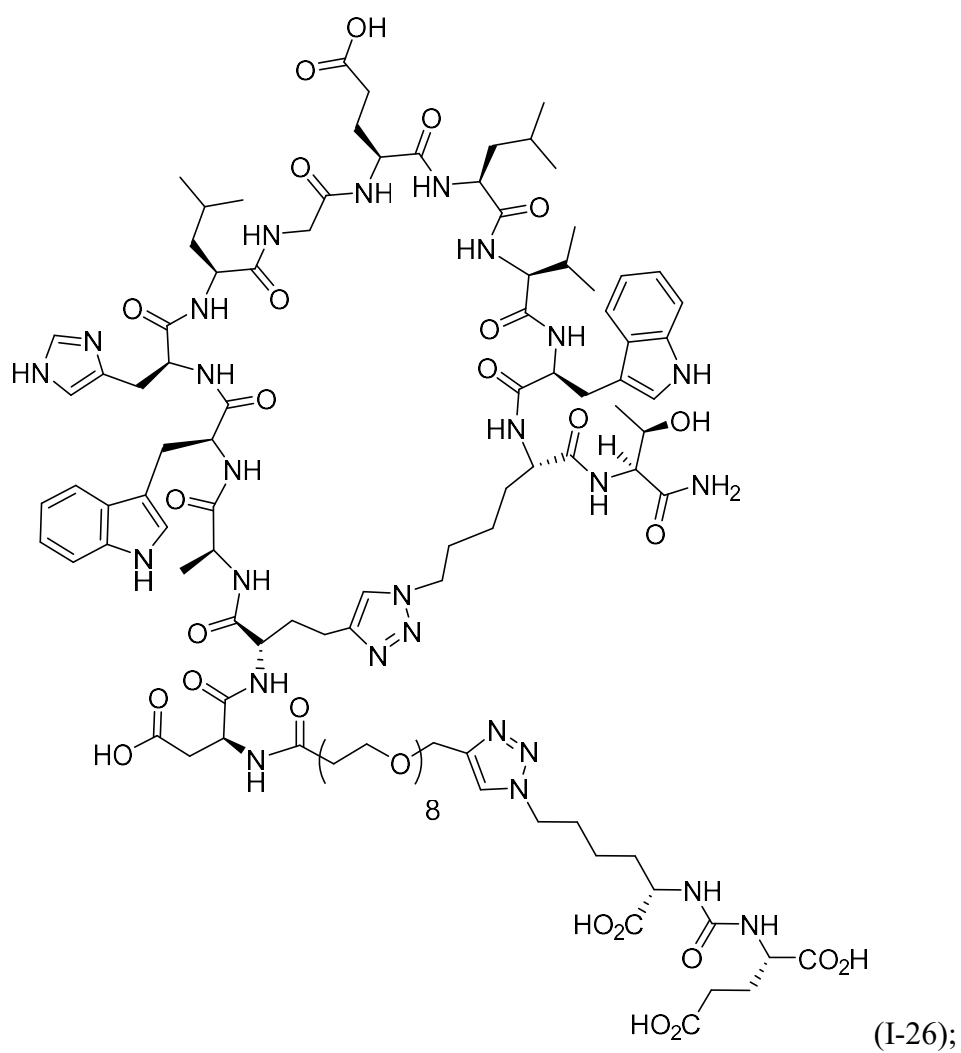
(I-16);

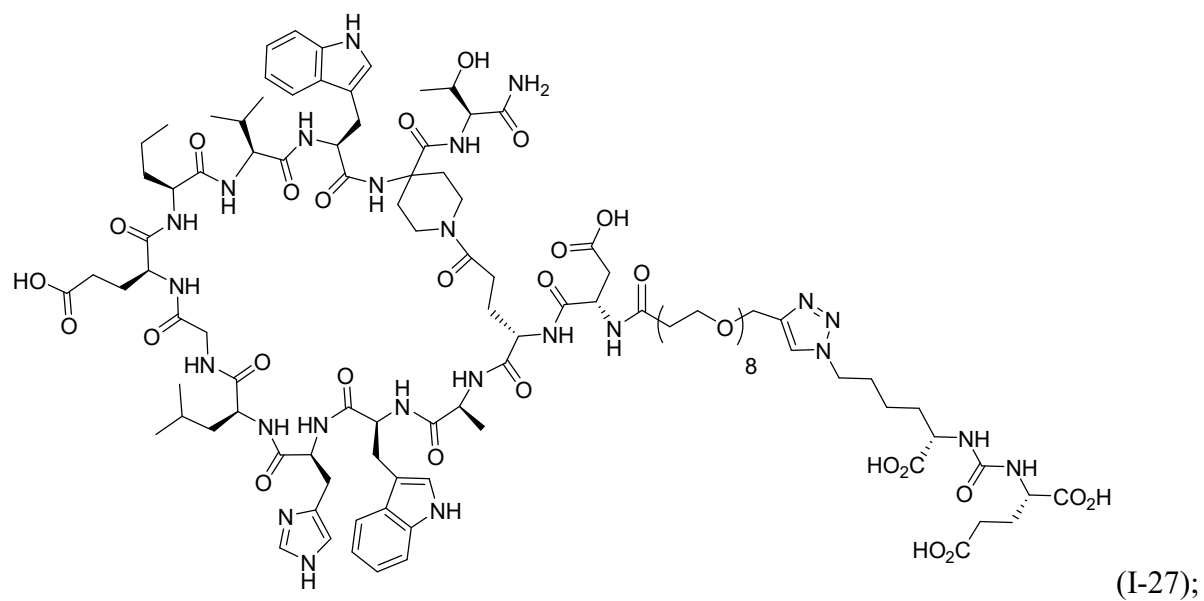
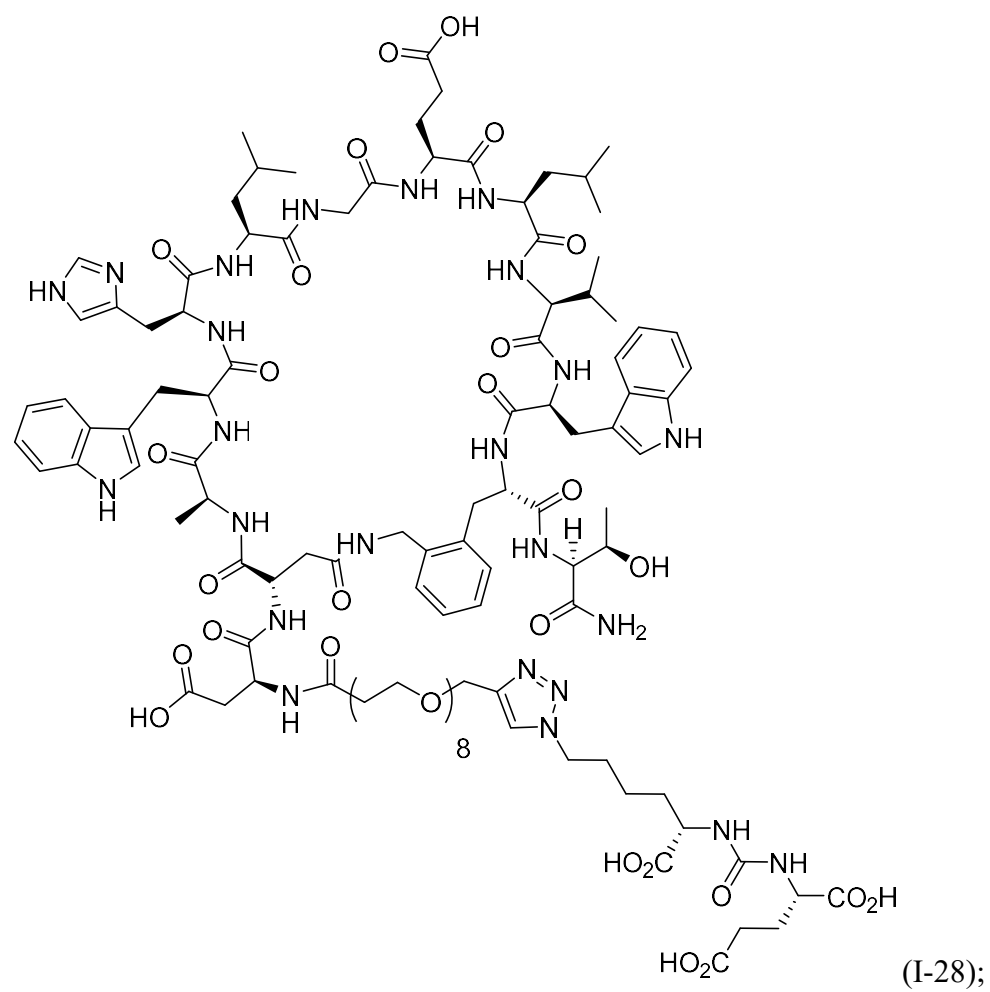






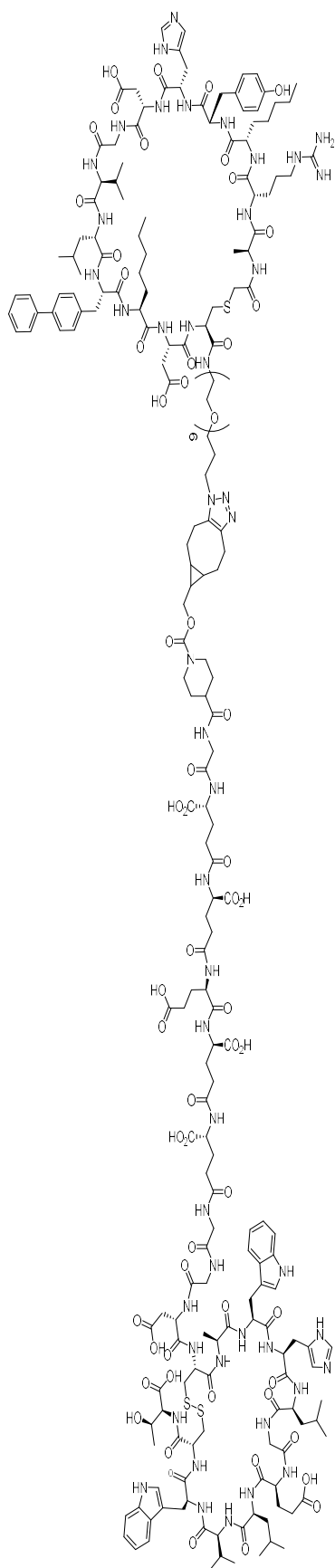








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18. A combination of any one of claims 1 to 10 or an ARM of any one of claims 11 to 17 for use in a method of treating cancer.

19. The combination or ARM of claim 18, for use in a method of treating prostate cancer, metastatic prostate cancer, stomach cancer, colon uterine cancer, ovarian cancer, testicular cancer, bladder cancer, renal cancer, brain/CNS cancer, head and neck cancer, throat cancer, Hodgkin's disease, non-Hodgkin's lymphoma, multiple myeloma, leukemia, melanoma, non-melanoma skin cancer, acute lymphocytic leukemia, acute myelogenous leukemia, Ewing's sarcoma, small cell lung cancer, choriocarcinoma, rhabdomyosarcoma, Wilms' tumor, neuroblastoma, hairy cell leukemia, mouth/pharynx cancer, esophageal cancer, larynx cancer, kidney cancer, or lymphoma.

20. The combination or ARM of claim 18, for use in a method of treating leukemia, lymphoma, or melanoma.