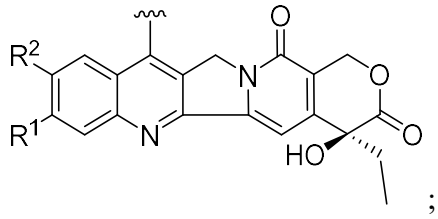
**CLAIMS:**

1. A compound of Formula I, or a pharmaceutically acceptable salt, thereof:

$$Z—L^1—D \text{ (Formula I)}$$

wherein:

D is represented by the following structural formula:




;

$R^1$ is -F;

$R^2$ is methyl;

$-L^1-Z$ is (i) -($C_1$-$C_4$ alkylene)-$OR^6$, -($C_1$-$C_4$ alkylene)-$SR^6$, or -($C_1$-$C_4$ alkylene)-$N(R^6)_2$; or (ii) -($C_1$-$C_5$ alkylene)-$NR^5C(=O)$-($C_1$-$C_5$ alkylene)-$OR^6$, -($C_1$-$C_5$ alkylene)-$NR^5C(=O)$-($C_1$-$C_5$ alkylene)-$SR^6$, -($C_1$-$C_5$ alkylene)-S-($C_1$-$C_5$ alkylene)-$SR^6$, or -($C_1$-$C_5$ alkylene)-S-($C_1$-$C_5$ alkylene)-$SSR^6$;

$R^5$ is independently -H, methyl, or benzyl; and

$R^6$ is independently -H, methyl, or benzyl;

with the proviso that $–L^1$-Z cannot be $–CH_2OH$.

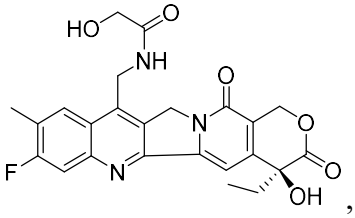
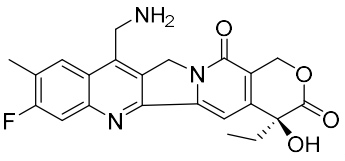
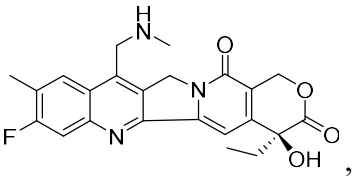
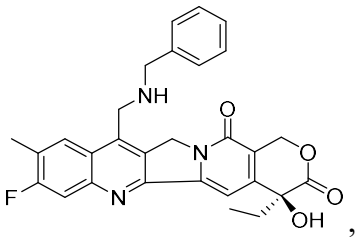
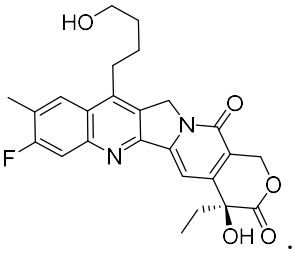
2. The compound of claim 1, wherein

(i) $-L^1-Z$ is $-(CH_2)_2OH$, $-(CH_2)_3OH$, $-(CH_2)_4OH$, $-CH_2OMe$, $-(CH_2)_2OMe$, $-(CH_2)_3OMe$, $-(CH_2)_4OMe$, $-CH_2SH$, $-(CH_2)_2SH$, $-(CH_2)_3SH$, $-(CH_2)_4SH$, $-CH_2SMe$, $-(CH_2)_2SMe$, $-(CH_2)_3SMe$, $-(CH_2)_4SMe$, $-CH_2NH_2$, $-(CH_2)_2NH_2$, $-(CH_2)_3NH_2$, $-(CH_2)_4NH_2$; or

(ii) $-L^1-Z$ is $-CH_2NHC(=O)CH_2OH$, $-CH_2NHC(=O)(CH_2)_2OH$, $-CH_2NHC(=O)(CH_2)_3OH$, $-CH_2NHC(=O)(CH_2)_4OH$, $-CH_2NHC(=O)(CH_2)_5OH$, $-CH_2NHC(=O)CH_2OMe$, $-CH_2NHC(=O)(CH_2)_2OMe$, $-CH_2NHC(=O)(CH_2)_3OMe$, $-CH_2NHC(=O)(CH_2)_4OMe$, $-CH_2NHC(=O)(CH_2)_5OMe$, $-CH_2NHC(=O)CH_2SH$, $-CH_2NHC(=O)(CH_2)_2SH$, $-CH_2NHC(=O)(CH_2)_3SH$, $-CH_2NHC(=O)(CH_2)_4SH$, $-CH_2NHC(=O)(CH_2)_5SH$, $-CH_2NHC(=O)CH_2SMe$, $-CH_2NHC(=O)(CH_2)_2SMe$, $-CH_2NHC(=O)(CH_2)_3SMe$, $-CH_2NHC(=O)(CH_2)_4SMe$, $-CH_2NHC(=O)(CH_2)_5SMe$, $-CH_2SCH_2SH$, $-CH_2S(CH_2)_2SH$, -

$CH_2S(CH_2)_3SH$, $-CH_2S(CH_2)_4SH$, $-CH_2S(CH_2)_5SH$, $-CH_2SCH_2SMe$, $-CH_2S(CH_2)_2SMe$, $-CH_2S(CH_2)_3SMe$, $-CH_2S(CH_2)_4SMe$, or $-CH_2S(CH_2)_5SMe$.

3. The compound of claim 1, wherein the compound is any one of the compounds selected from the following:

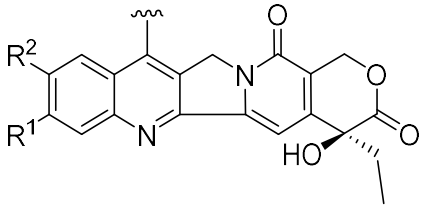

,

,

,

, and

.

4. A compound of Formula II, or a pharmaceutically acceptable salt thereof:

E—A—Z'—$L^1$—D (Formula II)

wherein:

D is represented by the following structural formula:


;

$R^1$ is -F;

$R^2$ is methyl;

$L^1$-Z'-* is (i) -($C_1$-$C_4$ alkylene)-O-$CH_2$-$NR^8$-*, -($C_1$-$C_4$ alkylene)-S-$CH_2$-$NR^8$-*, or -($C_1$-$C_4$ alkylene)-$NR^8$-*, or (ii) -($C_1$-$C_5$ alkylene)-$NR^5$C(=O)-($C_1$-$C_5$ alkylene)-O-$CH_2$-$NR^8$-*, -($C_1$-$C_5$ alkylene)-$NR^5$C(=O)-($C_1$-$C_5$ alkylene)-S-$CH_2$-$NR^8$-*, -($C_1$-$C_5$ alkylene)-S-($C_1$-$C_5$ alkylene)-S-$CH_2$-$NR^8$-*, or -($C_1$-$C_5$ alkylene)-S-($C_1$-$C_5$ alkylene)-SS-$CH_2$-$NR^8$-*, where * is the site covalently attached to A;

each $R^5$ is independently -H, methyl, or benzyl;

each $R^8$ is independently -H, methyl, or benzyl;

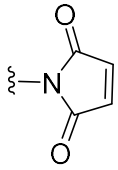
A is a peptide comprising 2 to 10 amino acids; wherein A is optionally substituted with one or more group that is -($C_1$-$C_6$ alkylene)-$X^5$-$Y^3$, wherein:

$X^5$ is -$NR^{12}$C(=O)- or -C(=O)$NR^{12}$-;

$Y^3$ is -$C_1$-$C_{10}$ alkyl, where $Y^3$ is substituted with 0-10 OH groups; and

$R^{12}$ is -H, $C_1$-$C_6$ alkyl, $C_1$-$C_6$ fluoroalkyl, $C_3$-$C_6$ cycloalkyl, aryl, heteroaryl, or benzyl; and

E is -C(=O)-($C_1$-$C_{10}$ alkylene)-$X^3$;

$X^3$ is  .

5. The compound of claim 4, wherein

(i) -$L^1$-Z'-* is -$CH_2O$-$CH_2NH$-*, -$(CH_2)_2O$-$CH_2NH$-*, -$(CH_2)_3O$-$CH_2NH$-*, -$(CH_2)_4O$-$CH_2NH$-*, -$CH_2S$-$CH_2NH$-*, -$(CH_2)_2S$-$CH_2NH$-*, -$(CH_2)_3S$-$CH_2NH$-*, -$(CH_2)_4S$-$CH_2NH$-*, -$CH_2NH$-*, -$(CH_2)_2NH$-*, -$(CH_2)_3NH$-*, or -$(CH_2)_4NH$-*; or

(ii) -$L^1$-Z'-* is -$CH_2NHC(=O)CH_2O$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_2O$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_3O$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_4O$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_5O$-$CH_2$-NH-*, -$CH_2NHC(=O)CH_2S$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_2S$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_3S$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_4S$-$CH_2$-NH-*, -$CH_2NHC(=O)(CH_2)_5S$-$CH_2$-NH-*, -$CH_2SCH_2S$-$CH_2$-NH-*, -$CH_2S(CH_2)_2S$-$CH_2$-NH-*, -$CH_2S(CH_2)_3S$-$CH_2$-NH-*, -$CH_2S(CH_2)_4S$-$CH_2$-NH-*, or -$CH_2S(CH_2)_5S$-$CH_2$-NH-*, where * is the site covalently attached to A.

6. The compound of claim 4 or 5, wherein A is -($AA^1$)-$(AA^2)_{a1}$-*, where * is the site covalently attached to E; wherein

(i) -$AA^1$-$(AA^2)_{a1}$-* is -Gly-Gly-Gly-*, -Ala-Val-*, -Val-Ala-*, -Val-Cit-*, -Val-Lys-*, -Lys-Val-*, -Phe-Lys-*,-Lys-Phe-*, -Lys-Lys-*, -Ala-Lys-*, -Lys-Ala-*, -Phe-Cit-*,-Cit-Phe-*, -Leu-Cit-*,- Cit-Leu-* - Ile -Cit-* , -Phe-Ala-*,-Ala-Phe-*, -Phe-N9-tosyl-Arg-*, -N9-tosyl-Arg-Phe-*, -Phe-N9-nitro-Arg-*, -N9-nitro-Arg-Phe *, -Phe-Phe-Lys-*, -Lys-Phe-Phe-*, -Gly-Phe-Lys-*,

Lys-Phe-Gly-*, -Leu-Ala-Leu-*, -Ile-Ala-Leu-*, -Leu-Ala-Ile-*, -Val-Ala-Val-*, -Ala-Leu-Ala-Leu-*,-Leu-Ala-Leu-Ala-*, -β-Ala-Leu-Ala-Leu-*, -Gly-Phe-Leu-Gly-*,-Gly-Leu-Phe-Gly-*, -Val-Arg-*, -Arg-Val-*, -Arg-Arg-*, -Ala-Ala-*, -Ala-Met-*, -Met-Ala-*, -Thr-Thr-*, -Thr-Met-*, -Met-Thr-*, -Leu-Ala-*, -Ala-Leu-*, -Cit-Val-*, -Gln-Val-*, -Val-Gln-*, -Ser-Val-*, -Val-Ser-*, -Ser-Ala-*, -Ser-Gly-*, -Ala-Ser-*, -Gly-Ser-*, -Leu-Gln-*, -Gln-Leu-*, -Phe-Arg-*, -Arg-Phe-*, -Tyr-Arg-*, -Arg-Tyr-*, -Phe-Gln-*, -Gln-Phe-*, -Val-Thr-*, -Thr-Val-*, -Met-Tyr-*, and -Tyr-Met-*;

(ii) -$AA^1$-$(AA^2)_{a1}$-* is -Val-D-Lys-*, -Val-D-Arg-*, -L-Val-Cit-*, -L-Val-Lys-*, -L-Val-Arg-*, -L-Val-D-Cit-*, -L-Phe-Phe-Lys-*, -L-Val-D-Lys-*, -L-Val-D-Arg-*, -L-Arg-D-Arg-*, -L-Ala-Ala-*, -L-Ala-D-Ala-*, -Ala-D-Ala-*, -Val-D-Cit-*, -L-Ala-L-Ala-*, -L-Ala-L-Val-*, -L-Gln-L-Val-*, -L-Gln-L-Leu-*, or -L-Ser-L-Val-*;

(iii) -$AA^1$-$(AA^2)_{a1}$-* is:

-Ala-Ala-*,

-Ala-Val-*,

-Val-Ala-*

-Gln-Leu-*,

-Leu-Gln-*

-Ala-Ala-Ala-*,

-Ala-Ala-Ala-Ala-*,

-Gly-Ala-Gly-Gly-*,

-Gly-Gly-Ala-Gly-*,

-Gly-Val-Gly-Gly-*,

-Gly-Gly-Val-Gly-*,

-Gly-Phe-Gly-Gly-*, or

-Gly-Gly-Phe-Gly-*;

(iv) -$AA^1$-$(AA^2)_{a1}$-* is:

-L-Ala-L-Ala-*,

-L-Ala-D-Ala-*,

-L-Ala-L-Val-*,

-L-Ala-D-Val-*,

-L-Val-L-Ala-*,

-L-Val-D-Ala-*

-L-Gln-L-Leu-*,

-L-Gln-D-Leu-*,

-L-Leu-L-Gln-*,

-L-Leu-D-Gln-*,

-L-Ala-L-Ala-L-Ala-*,

-L-Ala-D-Ala-L-Ala-*,

-L-Ala-L-Ala-D-Ala-*,

-L-Ala-L-Ala-L-Ala-L-Ala-*,

-L-Ala-D-Ala-L-Ala-L-Ala-*,

-L-Ala-L-Ala-D-Ala-L-Ala-*,

-L-Ala-L-Ala-L-Ala-D-Ala-*,

-Gly-L-Ala-Gly-Gly-*,

-Gly-Gly-L-Ala-Gly-*,

-Gly-D-Ala-Gly-Gly-*,

-Gly-Gly-D-Ala-Gly-*,

-Gly-L-Val-Gly-Gly-*,

-Gly-Gly-L-Val-Gly-*,

-Gly-D-Val-Gly-Gly-*,

-Gly-Gly-D-Val-Gly-*,

-Gly-L-Phe-Gly-Gly-*, or

-Gly-Gly-L-Phe-Gly-*; or

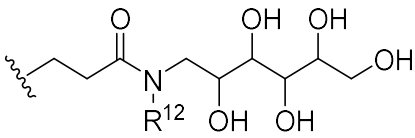
(v) $-AA^1-(AA^2)_{a1}-*$ is:

-L-Ala-L-Ala-*,

-L-Ala-D-Ala-LAla-*,

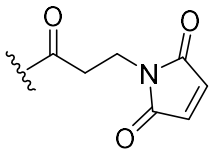
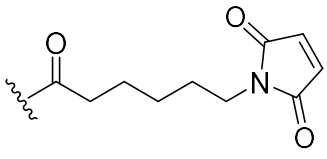
-L-Ala-L-Ala-L-Ala-*, or

-L-Ala-L-Ala-L-Ala-L-Ala-*.

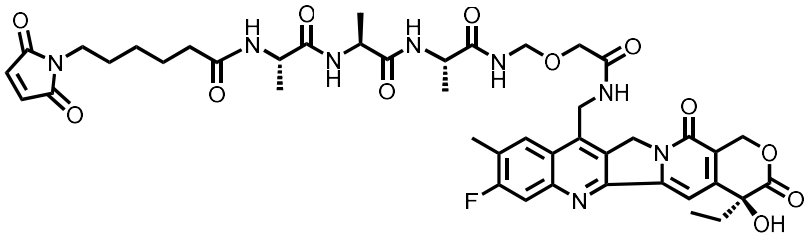
7. The compound of any one of claims 4-6, wherein A is substituted with one or more group that is 

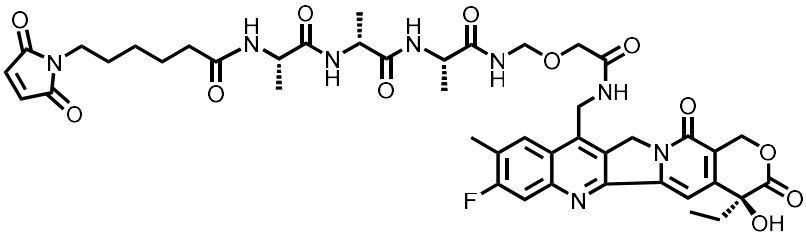
; wherein $R^{12}$ is H or methyl.

8. The compound of any one of claims 4-7, wherein E is


, or

.

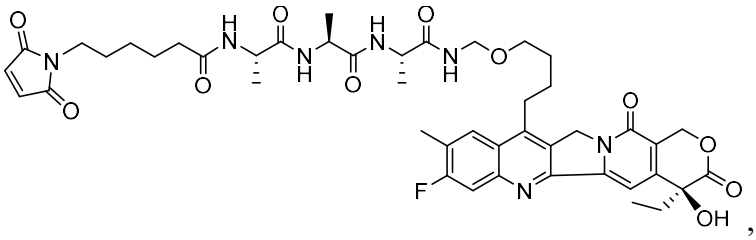
9. The compound of claim 4, wherein the compound is represented by the following formula:


, or


,

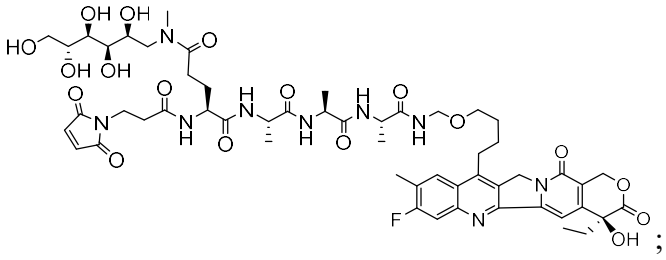
or a pharmaceutically acceptable salt thereof.

10. The compound of claim 4, wherein the compound is represented by the following formula:

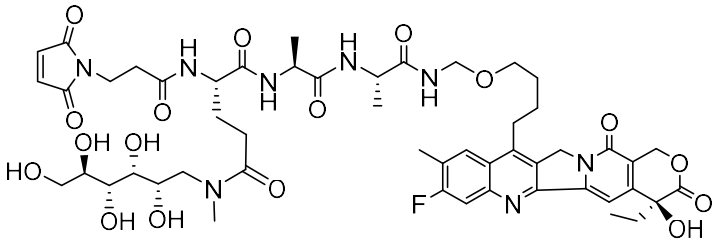

,

or a pharmaceutically acceptable salt thereof.

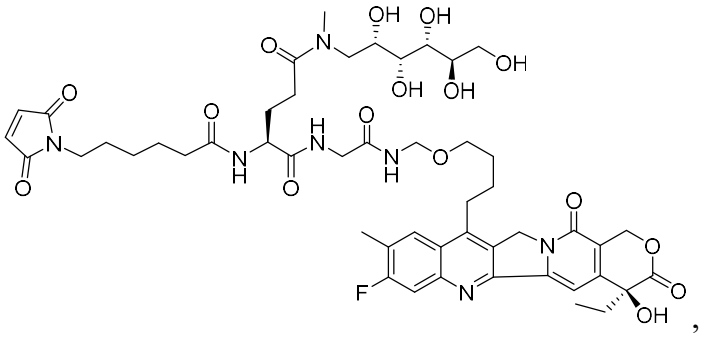
11. The compound of claim 4, wherein the compound is represented by the following formula:



;



; or



,

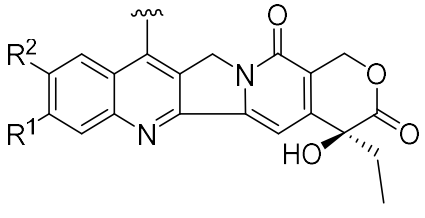
or a pharmaceutically acceptable salt thereof.

12. A compound of Formula III, or a pharmaceutically acceptable salt thereof:

CBA—E'—A—Z'—$L^1$—D (Formula III)

wherein:

D is represented by the following structural formula:



;

$R^1$ is -F;

$R^2$ is methyl;

$-L^1-Z'-*$ is (i) $-(C_1-C_4$ alkylene$)-O-CH_2-NR^8-*$, $-(C_1-C_4$ alkylene$)-S-CH_2-NR^8-*$, or $-(C_1-C_4$ alkylene$)-NR^8-*$, or (ii) $-(C_1-C_5$ alkylene$)-NR^5C(=O)-(C_1-C_5$ alkylene$)-O-CH_2-NR^8-*$, $-(C_1-C_5$ alkylene$)-NR^5C(=O)-(C_1-C_5$ alkylene$)-S-CH_2-NR^8-*$, $-(C_1-C_5$ alkylene$)-S-(C_1-C_5$ alkylene$)-S-CH_2-NR^8-*$, or $-(C_1-C_5$ alkylene$)-S-(C_1-C_5$ alkylene$)-SS-CH_2-NR^8-*$, where * is the site covalently attached to A;

each $R^5$ is independently -H, methyl, or benzyl;

each $R^8$ is independently -H, methyl, or benzyl;

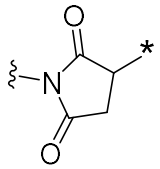
A is a peptide comprising 2 to 10 amino acids; wherein A is optionally substituted with one or more group that is $-(C_1-C_6$ alkylene$)-X^5-Y^3$, wherein:

$X^5$ is $-NR^{12}C(=O)-$ or $-C(=O)NR^{12}-$;

$Y^3$ is $-C_1-C_{10}$ alkyl, where $Y^3$ is substituted with 0-10 OH groups; and

$R^{12}$ is -H, $C_1-C_6$ alkyl, $C_1-C_6$ fluoroalkyl, $C_3-C_6$ cycloalkyl, aryl, heteroaryl, or benzyl;

E' is $-C(=O)-(C_1-C_{10}$ alkylene$)-X^6-*$; where * is the site covalently linked to CBA;

$X^6$ is  ; where * is the site covalently attached to CBA; and

CBA is a cell binding agent.

13. The compound of claim 12, wherein

(i) $-L^1-Z'-*$ is $-CH_2O-CH_2NH-*$, $-(CH_2)_2O-CH_2NH-*$, $-(CH_2)_3O-CH_2NH-*$, $-(CH_2)_4O-CH_2NH-*$, $-CH_2S-CH_2NH-*$, $-(CH_2)_2S-CH_2NH-*$, $-(CH_2)_3S-CH_2NH-*$, $-(CH_2)_4S-CH_2NH-*$, $-CH_2NH-*$, $-(CH_2)_2NH-*$, $-(CH_2)_3NH-*$, or $-(CH_2)_4NH-*$; or

(ii) $-L^1-Z'-*$ is $-CH_2NHC(=O)CH_2O-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_2O-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_3O-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_4O-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_5O-CH_2-NH-*$, $-CH_2NHC(=O)CH_2S-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_2S-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_3S-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_4S-CH_2-NH-*$, $-CH_2NHC(=O)(CH_2)_5S-CH_2-NH-*$, $-CH_2SCH_2S-CH_2-NH-*$, $-CH_2S(CH_2)_2S-CH_2-NH-*$, $-CH_2S(CH_2)_3S-CH_2-NH-*$, $-CH_2S(CH_2)_4S-CH_2-NH-*$, or $-CH_2S(CH_2)_5S-CH_2-NH-*$.

14. The compound of claim 12 or 13, wherein A is -($AA^1$)-($AA^2$)$_{a1}$-*, where * is the point of attachment to E or E', wherein

(i) -($AA^1$)-($AA^2$)$_{a1}$-* is -Gly-Gly-Gly-*, -Ala-Val-*, -Val-Ala-*, -Val-Cit-*, -Val-Lys-*, -Lys-Val-*, -Phe-Lys-*,-Lys-Phe-*, -Lys-Lys-*, -Ala-Lys-*, -Lys-Ala-*, -Phe-Cit-*,-Cit-Phe-*, -Leu-Cit-*,- Cit-Leu-* - Ile -Cit-* , -Phe-Ala-*,-Ala-Phe-*, -Phe-N9-tosyl-Arg-*, -N9-tosyl-Arg-Phe-*, -Phe-N9-nitro-Arg-*, -N9-nitro-Arg-Phe *, -Phe-Phe-Lys-*, -Lys-Phe-Phe-*, -Gly-Phe-Lys-*, Lys-Phe-Gly-*, -Leu-Ala-Leu-*, -Ile-Ala-Leu-*, -Leu-Ala-Ile-*, -Val-Ala-Val-*, -Ala-Leu-Ala-Leu-*,-Leu-Ala-Leu-Ala-*, -β-Ala-Leu-Ala-Leu-*, -Gly-Phe-Leu-Gly-*,-Gly-Leu-Phe-Gly-*, -Val-Arg-*, -Arg-Val-*, -Arg-Arg-*, -Ala-Ala-*, -Ala-Met-*, -Met-Ala-*, -Thr-Thr-*, -Thr-Met-*, -Met-Thr-*, -Leu-Ala-*, -Ala-Leu-*, -Cit-Val-*, -Gln-Val-*, -Val-Gln-*, -Ser-Val-*, -Val-Ser-*, -Ser-Ala-*, -Ser-Gly-*, -Ala-Ser-*, -Gly-Ser-*, -Leu-Gln-*, -Gln-Leu-*, -Phe-Arg-*, -Arg-Phe-*, -Tyr-Arg-*, -Arg-Tyr-*, -Phe-Gln-*, -Gln-Phe-*, -Val-Thr-*, -Thr-Val-*, -Met-Tyr-*, and -Tyr-Met-*;

(ii) -$AA^1$-($AA^2$)$_{a1}$-* is -Val-D-Lys-*, -Val-D-Arg-*, -L-Val-Cit-*, -L-Val-Lys-*, -L-Val-Arg-*, -L-Val-D-Cit-*, -L-Phe-Phe-Lys-*, -L-Val-D-Lys-*, -L-Val-D-Arg-*, -L-Arg-D-Arg-*, -L-Ala-Ala-*, -L-Ala-D-Ala-*, -Ala-D-Ala-*, -Val-D-Cit-*, -L-Ala-L-Ala-*, -L-Ala-L-Val-*, -L-Gln-L-Val-*, -L-Gln-L-Leu-*, or -L-Ser-L-Val-*;

(iii) -$AA^1$-($AA^2$)$_{a1}$-* is:

-Ala-Ala-*,

-Ala-Val-*,

-Val-Ala-*

-Gln-Leu-*,

-Leu-Gln-*

-Ala-Ala-Ala-*,

-Ala-Ala-Ala-Ala-*,

-Gly-Ala-Gly-Gly-*,

-Gly-Gly-Ala-Gly-*,

-Gly-Val-Gly-Gly-*,

-Gly-Gly-Val-Gly-*,

-Gly-Phe-Gly-Gly-*, or

-Gly-Gly-Phe-Gly-*;

(iv) $-AA^1-(AA^2)_{a1}-*$ is:

-L-Ala-L-Ala-*,

-L-Ala-D-Ala-*,

-L-Ala-L-Val-*,

-L-Ala-D-Val-*,

-L-Val-L-Ala-*,

-L-Val-D-Ala-*

-L-Gln-L-Leu-*,

-L-Gln-D-Leu-*,

-L-Leu-L-Gln-*,

-L-Leu-D-Gln-*,

-L-Ala-L-Ala-L-Ala-*,

-L-Ala-D-Ala-L-Ala-*,

-L-Ala-L-Ala-D-Ala-*,

-L-Ala-L-Ala-L-Ala-L-Ala-*,

-L-Ala-D-Ala-L-Ala-L-Ala-*,

-L-Ala-L-Ala-D-Ala-L-Ala-*,

-L-Ala-L-Ala-L-Ala-D-Ala-*,

-Gly-L-Ala-Gly-Gly-*,

-Gly-Gly-L-Ala-Gly-*,

-Gly-D-Ala-Gly-Gly-*,

-Gly-Gly-D-Ala-Gly-*,

-Gly-L-Val-Gly-Gly-*,

-Gly-Gly-L-Val-Gly-*,

-Gly-D-Val-Gly-Gly-*,

-Gly-Gly-L-Val-Gly-*,

-Gly-L-Phe-Gly-Gly-*, or

-Gly-Gly-L-Phe-Gly-*; or

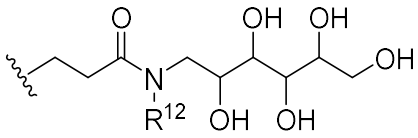
(v) $-AA^1-(AA^2)_{a1}-*$ is:

-L-Ala-L-Ala-*,

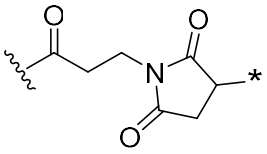
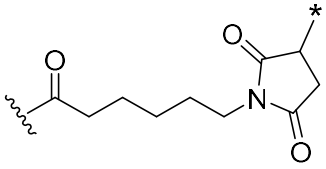
-L-Ala-D-Ala-L-Ala-*,

-L-Ala-L-Ala-L-Ala-*, or

-L-Ala-L-Ala-L-Ala-L-Ala-*.

15. The compound of any one of claims 12-14, wherein A is substituted with one or more group that is  ; wherein $R^{12}$ is H or methyl.

16. The compound of any one of claims 12-15, wherein E' is

 , or  ; where * is the site covalently attached to CBA.

17. A pharmaceutical composition comprising a compound according to any one of claims 1-16, or the pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier.

18. Use of the pharmaceutical composition of claim 17 in the preparation of a medicament for treating cancer in a subject.

19. The use of claim 18, wherein

(i) the cancer is a lymphoma or a leukemia;

(ii) the cancer is acute myeloid leukemia (AML), chronic myelogenous leukemia (CML), myelodysplastic syndrome (MDS), acute lymphoblastic leukemia (ALL), acute B lymphoblastic leukemia or B-cell acute lymphoblastic leukemia (B-ALL), chronic lymphocytic leukemia (CLL), hairy cell leukemia (HCL), acute promyelocytic leukemia (APL), B-cell chronic lymphoproliferative disease (B-CLPD), atypical chronic lymphocytic leukemia, diffuse large B-cell lymphoma (DLBCL), blastic plasmacytoid dendritic cell neoplasm (BPDCN), non-Hodgkin lymphomas (NHL), mantel cell leukemia (MCL), small lymphocytic lymphoma (SLL), Hodgkin's lymphoma, systemic mastocytosis, and Burkitt's lymphoma; or

(iii) the cancer is endometrial cancer, lung cancer, colorectal cancer, bladder cancer, gastric cancer, pancreatic cancer, renal cell carcinoma, prostate cancer, esophageal cancer, breast

cancer, head and neck cancer, uterine cancer, ovarian cancer, liver cancer, cervical cancer, thyroid cancer, testicular cancer, myeloid cancer, melanoma, and lymphoid cancer.

20. The use of claim 19, wherein the lung cancer is non-small cell lung cancer or small-cell lung cancer.