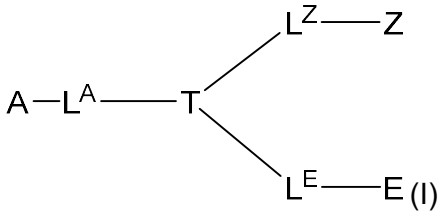
cleavable linker, and to at least one chelating group directly, through a third non-cleavable linker or through a second cleavable linker,

provided the branching group that is at least trivalent is connected to the at least one circulation enhancing group through the first cleavable linker, or

the branching group that is at least trivalent is connected to the at least one chelating group through the second cleavable linker.

[0014] In some examples, the compound has an *ex vivo* half-life in mouse plasma at about 37ºC of about 4 hours to about 360 hours, about 6 hours to about 144 hours, about 12 hours to about 120 hours, about 18 hours to about 108 hours, or about 24 hours to 96 hours.

[0015] In some examples, the compound is a compound of Formula I and the application also includes compound of Formula I or a pharmaceutically acceptable salt and/or solvate thereof



(I)

wherein

A is a circulation enhancing group;

Z is a target binding group;

E is a chelating group;

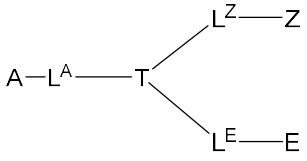
T is a branching group that is at least trivalent;

L^A and L^E are each independently a direct bond, a cleavable linker or a non-cleavable linker; and

L^Z is a direct bond or a non-cleavable linker;

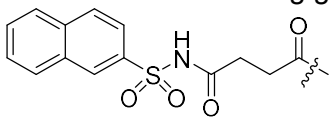
provided at least one of L^A and L^E is a cleavable linker.

[0015a] In one aspect, the present disclosure refers to a compound of Formula I or a pharmaceutically acceptable salt and/or solvate thereof

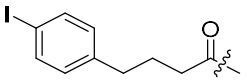


(I)

wherein
A is an albumin binding group is selected from

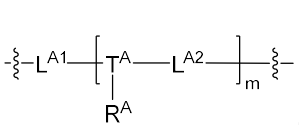
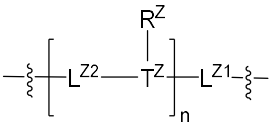


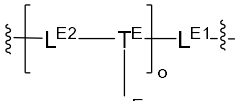
(2-Naph-SO_2NH-Suc),

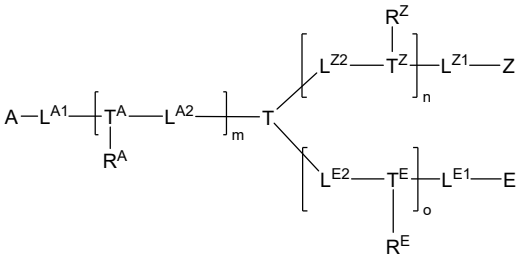


(4-pIBA),

unsubstituted or substituted C(O)C_{1-26}alkyleneCO_2H, unsubstituted or substituted C(O)C_{2-26}alkenyleneCO_2H, unsubstituted or substituted C(O)C_{1-26}alkyl and unsubstituted or substituted C(O)C_{2-26}alkenyl;
Z is a target binding group;
E is a chelating group;
T is a branching group that is at least trivalent;
L^A and L^E are each independently a direct bond, a cleavable linker or a non-cleavable linker, provided at least one of L^A and L^E is a cleavable linker; and
L^Z is a direct bond or a non-cleavable linker.

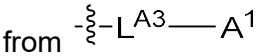
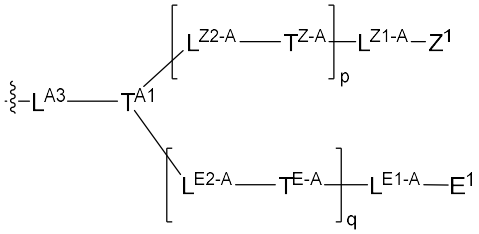
[0016] In some examples, L^A is , L^Z is 

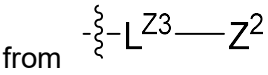
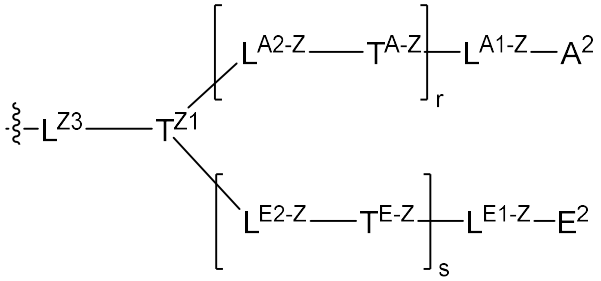
and L^E is . Accordingly, the application also includes a compound of Formula I wherein the compound of Formula I is a compound of Formula I-D or a pharmaceutically acceptable salt and/or solvate thereof

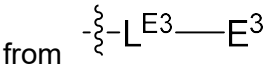
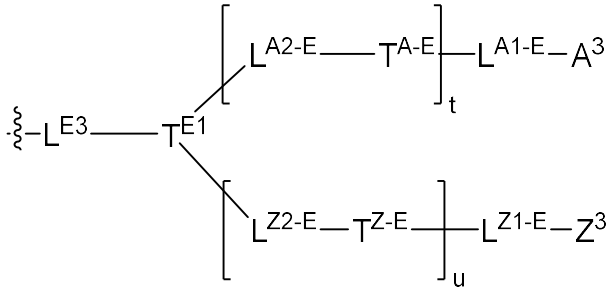


(I-D)

wherein
A, Z, E and T are as defined in Formula I
T^A, T^Z, T^E are each independently T as defined in formula I and T^A, T^Z, T^E and T are the same or different;
L^{A1} and L^{A2} are each independently L^A as defined in Formula I;
L^{E1} and L^{E2} are each independently L^E as defined in Formula I;
L^{Z1} and L^{Z2} are each independently L^Z as defined in Formula I;

R^A is selected from  and 

R^Z is selected from  and ;

R^E is selected from  and ;

T^{A1}, T^{Z-A}, T^{E-A}, T^{Z1}, T^{A-Z}, T^{E-Z}, T^{E1}, T^{Z-E}, T^{A-E} are each independently T as defined in Formula I and T, T^{A1}, T^{Z-A}, T^{E-A}, T^{Z1}, T^{A-Z}, T^{E-Z}, T^{E1}, T^{Z-E} and T^{A-E} are the same or different;

L^{A3}, L^{A1-Z}, L^{A2-Z}, L^{A1-E} and L^{A2-E} are each independently L^A as defined in Formula I;

L^{E3}, L^{E1-A}, L^{E2-A}, L^{E1-Z} and L^{E2-Z} and are each independently L^E as defined in Formula I;

L^{Z3}, L^{Z1-A}, L^{Z2-A}, L^{Z1-E} and L^{Z2-E} are each independently L^Z as defined in Formula I;

A^1, A^2 and A^3 are each independently A as defined in Formula I and A^1, A^2, A^3 and A are the same or different;

Z^1, Z^2 and Z^3 each independently Z as defined in Formula I and Z^1, Z^2 , Z^3 and Z are the same or different;

E^1, E^2 and E^3 each independently E as defined in Formula I and E^1, E^2, E^3 and E are the same or different; and

m, n, o, p, q, r, s, t and u are each independently selected from 0 and 1,

wherein at least one of L^{A3}, L^{E1-A} L^{E2-A}, L^{A1-Z}, L^{A2-Z}, L^{E1-Z}, $L^{E2-Z,}$ L^{E3}, L^{A1-E} and L^{A2-E} is a cleavable linker.

[0017] The application further includes a radionuclide complex or a pharmaceutically acceptable salt and/or solvate thereof, comprising a compound as defined above or a pharmaceutically acceptable salt and/or solvate thereof, and one or more radionuclides.

[0017a] In one aspect, the present disclosure refers to a radionuclide complex or a pharmaceutically acceptable salt and/or solvate thereof, comprising a compound disclosed herein or a pharmaceutically acceptable salt and/or solvate thereof, and one or more radionuclides.

[0018] The application includes a composition comprising one or more compounds as described above or a pharmaceutically acceptable salt and/or solvate thereof, or one or

more radionuclide complexes as described above or a pharmaceutically acceptable salt and/or solvate thereof and a carrier.

[0019] The application includes a composition comprising one or more compounds as described above or a pharmaceutically acceptable salt and/or solvate thereof, or one or more radionuclide complexes as described above or a pharmaceutically acceptable salt and/or solvate thereof and a pharmaceutically acceptable carrier.

[0020] The application also includes a kit comprising

one or more compounds as described above or a pharmaceutically acceptable salt and/or solvate thereof, and

instructions for administration of the one or more compounds of Formula I, or a pharmaceutically acceptable salt and/or solvate thereof, to a subject in need thereof.

[0021] The application further includes kit comprising

one or more compounds as described above or a pharmaceutically acceptable salt and/or solvate thereof, and

one or more radionuclides as defined above, and

optionally instructions for administration of the one or more compounds or a pharmaceutically acceptable salt and/or solvate thereof, to a subject in need thereof and the radioisotope to a subject in need thereof.

[0022] The application also includes a kit comprising

one or more radionuclide complexes as described above or a pharmaceutically acceptable salt and/or solvate thereof, and

instructions for administration of the one or more compounds complexes to a subject in need thereof.

[0023] Further included is a method of treating a disease or disorder comprising administering a therapeutically effective amount of one or more compounds as described above or one or more radionuclide complexes as described above or a pharmaceutically acceptable salt and/or solvate thereof to a subject in need thereof.

[0024] In some examples, the disease or disorder is cancer.

[0025] The application also includes a method of inhibiting proliferative activity in a cell, comprising administering an effective amount of one or more compounds of as described above or one or more radionuclide complexes as described above or a pharmaceutically acceptable salt and/or solvate thereof to the cell.

[0026] The application also includes a method of imaging a tissue in a subject by administering a imaging effective amount of one or more compounds as described above or one or more radionuclide complexes for use in imaging as described above or a pharmaceutically acceptable salt and/or solvate thereof and applying an imaging technique to detect emitted gamma rays.

[0027] The application also includes a method of diagnosing cancer in subject by administering a diagnostically effective amount of one or more compounds as described above or one or more radionuclide complexes for use in imaging as described above or a pharmaceutically acceptable salt and/or solvate thereof and applying an imaging technique to detect emitted gamma rays.

[0028] Other features and advantages of the present application will become apparent from the following detailed description. It should be understood, however, that the detailed description and the specific examples, while indicating examples of the application, are given by way of illustration only and the scope of the claims should not be limited by these examples, but should be given the broadest interpretation consistent with the description as a whole.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029] Certain embodiments of the application will now be described in greater detail with reference to the attached drawings in which:

[0030] Figure 1 shows the biodistribution of exemplary complex ^{177}Lu -I-21 in PC3-PIP tumor bearing mice.

[0031] Figure 2 shows the biodistribution of exemplary complex ^{177}Lu -I-35 in PC3-PIP tumor bearing mice

[0032] Figure 3 shows radio-HPLC traces of ex-vivo mouse plasma stability samples of exemplary compound ^{177}Lu-I-21.

[0033] Figure 4 shows radio-HPLC traces of ex-vivo mouse plasma stability samples of ^{177}Lu-C-6.

[0034] Figure 5 shows ^{68}Ga-PSMA11 (gozetotide) PET/CT imaging (Left panel) and ^{111}In-I-21 SPECT/CT imaging (48 hours after dosing) (Middle panel: Anterior; Right panel: Posterior) of 4 **(A, B, C, D)** metastatic castration-resistant prostate cancer (mCRPC) patients.