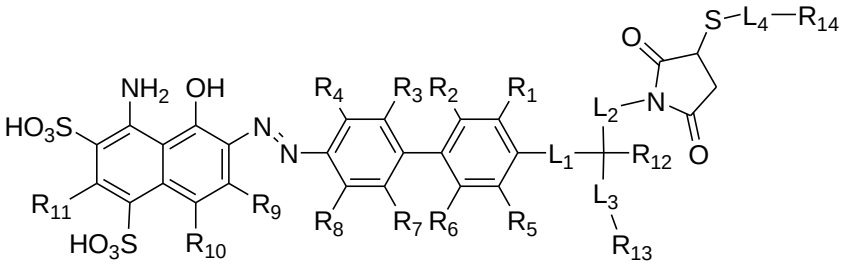
CLAIMS

What is claimed is:

1. A compound of Formula III or a pharmaceutically acceptable ester, amide, solvate, or salt thereof, or a salt of such an ester or amide or a solvate of such an ester amide or salt,



Formula III

wherein:

R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9, R_{10}, and R_{11} are independently selected from hydrogen, halogen, hydroxyl, cyano, C_1-C_6alkyl, C_1-C_6alkoxy, C_1-C_6haloalkyl, and C_1-C_6haloalkoxy;

R_{12} is hydrogen, C_1-C_6alkyl, or C_1-C_6haloalkyl;

R_{14} is a peptide;

L_1 is $–(CH_2)_m$- wherein m is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced;

L_2 is $–(CH_2)_n$- wherein n is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced;

L_3 is $–(CH_2)_p$- wherein p is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced; and

L_4 is $–(CH_2)_q$- wherein q is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced; and

R_{13} is a chelating group comprising ^{177}Lu.

2. The compound of claim 1 wherein L_1 is -NH(CO)-, R_1 and R_4 are each methyl, and R_2, R_3, R_5, R_6, R_7, R_8, R_9, R_{10}, R_{11}, and R_{12} are each hydrogen.

3. The compound of claim 1, wherein R_{14} is a therapeutic peptide.

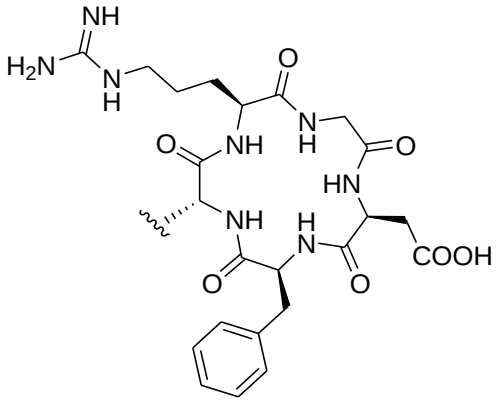
4. The compound of claim 1, wherein R_{14} is a peptide that binds to a target cell or tissue.

5. The compound of claim 4, wherein said target cell or tissue is a tumor.

6. The compound of claim 4, wherein R_{14} is selected from interferon alpha, GCSF, octreotate, bombesin, RGD, alpha-MSH, CTT1298, or aptamers.

7. The compound of claim 6, wherein R_{14} is the cyclic peptide Arg-Gly-Asp-Phe-Lys.

8. The compound of claim 4 wherein R_{14} is



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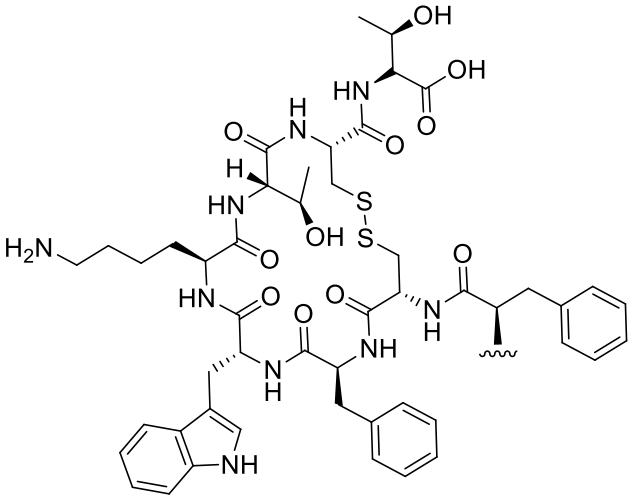

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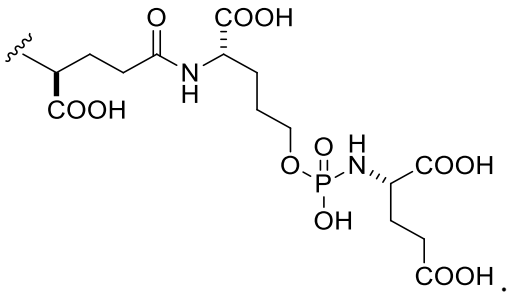

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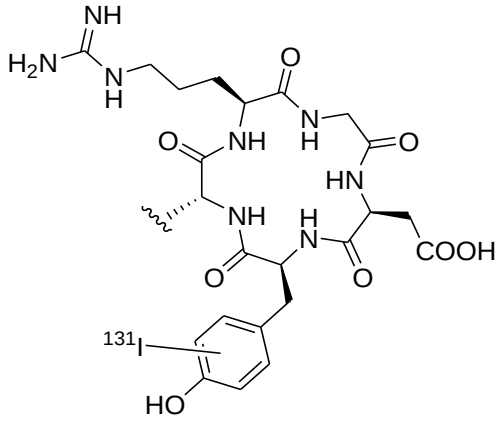
9. The compound of claim 4, wherein R_{14} is



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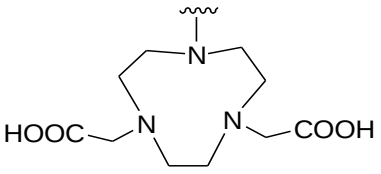
10. The compound of claim 1, wherein R_{13} is selected from



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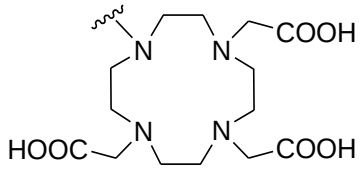

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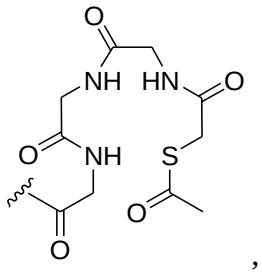

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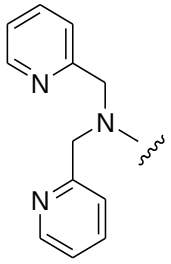

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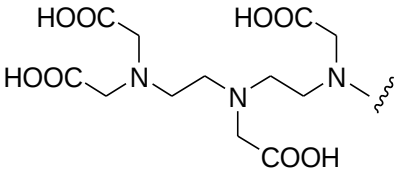

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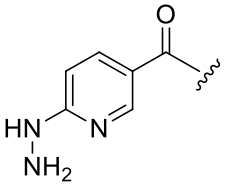

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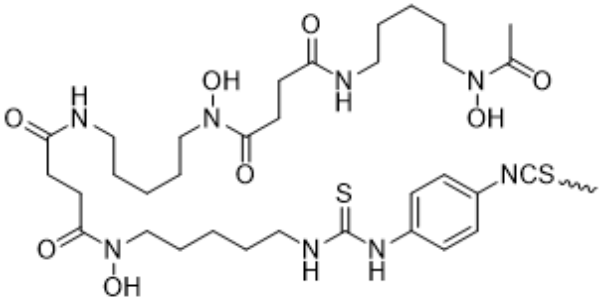
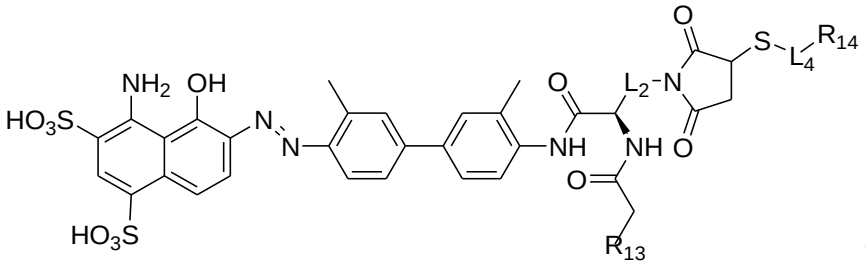


, a crown ether, a cyclodextrin, or a porphyrin.

11. The compound of claim 1, wherein the compound of Formula III is a compound of Formula IV:



Formula IV

wherein:

R_{14} is a peptide;

L_2 is $–(CH_2)_n$- wherein n is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced;

L_4 is $–(CH_2)_q$- wherein q is an integer from 0 to 12, wherein each CH_2 is individually replaced with –O-, -NH(CO)-, or –(CO)-NH-, providing no two adjacent CH_2 groups are replaced; and

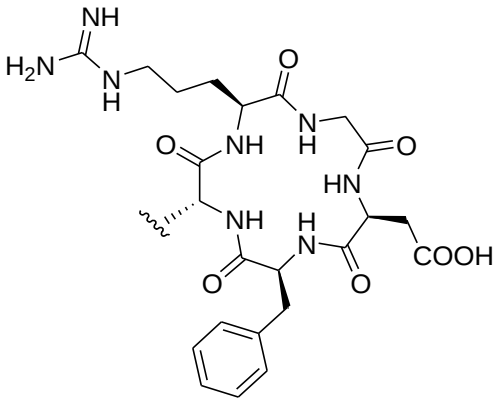
R_{13} is a chelating group comprising ^{177}Lu.

12. The compound of claim 11, wherein R_{14} is a peptide that binds to a target cell or tissue.

13. The compound of claim 12, wherein said target cell or tissue is a tumor.

14. The compound of claim 11, wherein R_{14} is the cyclic peptide Arg-Gly-Asp-Phe-Lys.

15. The compound of claim 11 wherein R_{14} is



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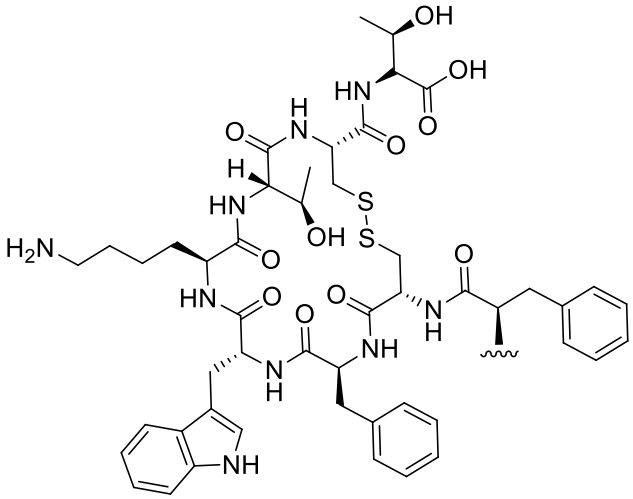

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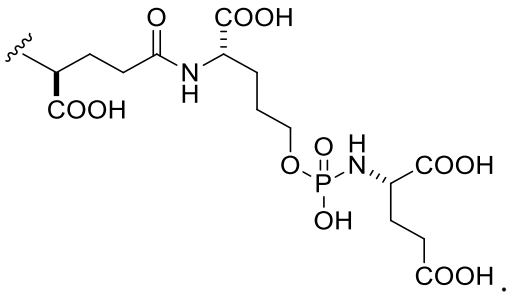

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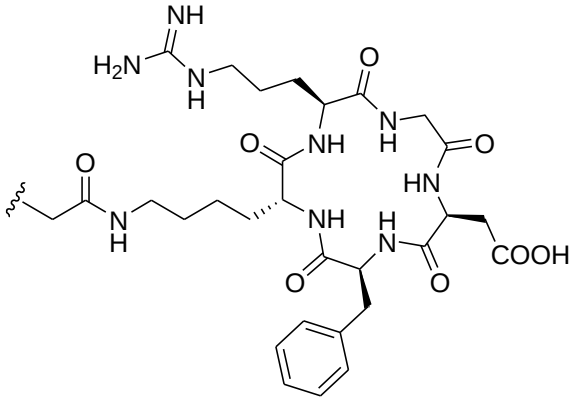
16. The compound of claim 11, wherein

L_2 is $-(CH_2)_4$-NH(CO)-$(CH_2)_2$-; and

L_4-R_{14} is



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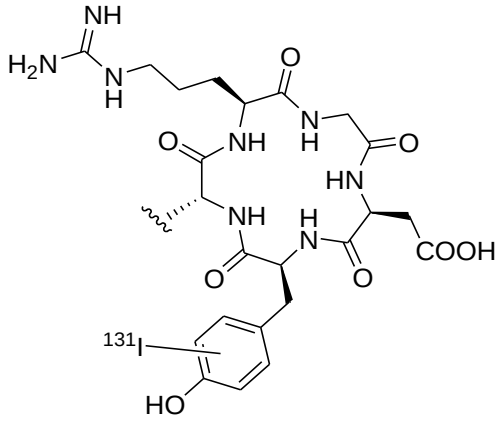
17. The compound of claim 11, wherein R_{14} further comprises a radionuclide.

18. The compound of claim 17, wherein the radionuclide is ^{18}F, ^{76}Br, ^{124}I, ^{125}I, or ^{131}I.

19. The compound of claim 17, wherein R_{14} is



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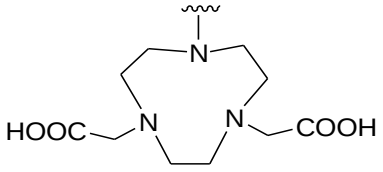
20. The compound of claim 11, wherein R_{13} is selected from



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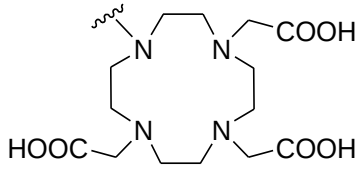

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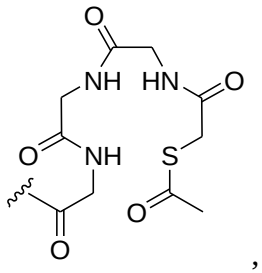

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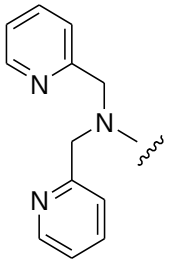

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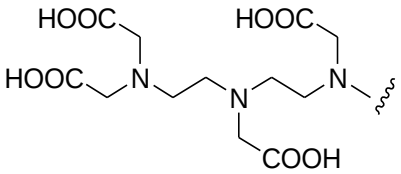

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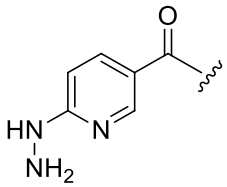

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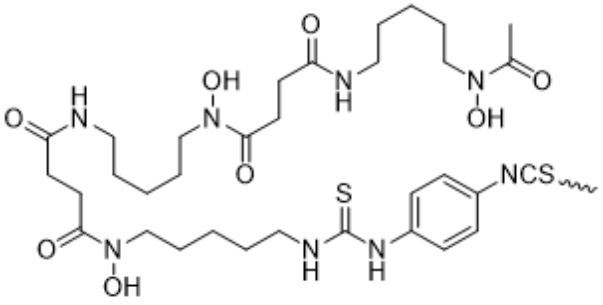

, a crown ether, a cyclodextrin, or a porphyrin.

21. A pharmaceutical composition comprising the compound of claim 1, together with a pharmaceutically acceptable carrier.

22. The composition of claim 21, wherein the pharmaceutically acceptable carrier is selected from the group consisting of binders, buffering agents, coloring agents, diluents, disintegrants, emulsifiers, flavorants, glidants, lubricants, preservatives, stabilizers, surfactants, tableting agents, and wetting agents, and combinations thereof.

23. A method of treating cancer in a mammal, comprising administering to said mammal a therapeutically effective amount of a compound of claim 1, optionally in combination with one or more additional active ingredients selected from the group consisting of doxorubicin, paclitaxel, docetaxel, cisplatin, camptothecin, temozolomide, avastin, Herceptin, Erbitux, and combinations thereof.