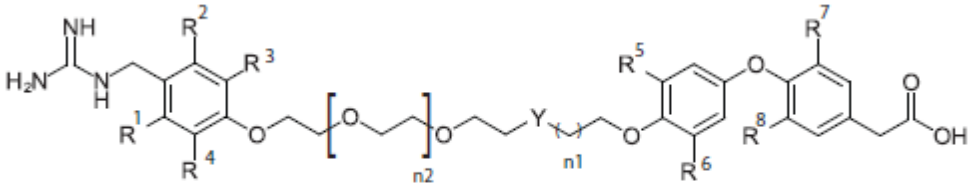
CLAIMS

1. A composition comprising:

a general formula:



or a salt thereof;

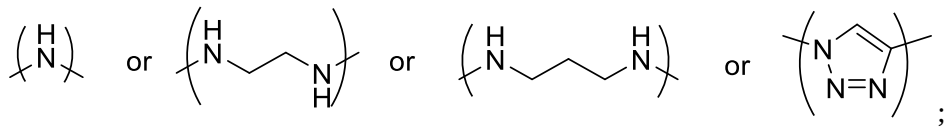
wherein R1, R2, R3, and R4 are each independently selected from the group consisting of hydrogen, iodine, fluorine, bromine, a methoxy group, a nitro group, an amine group, and a nitrile group;

wherein R5, R6, R7, and R8 are each independently selected from the group consisting of hydrogen, iodine, and an alkane group; and

$n_1 \geq 0$;

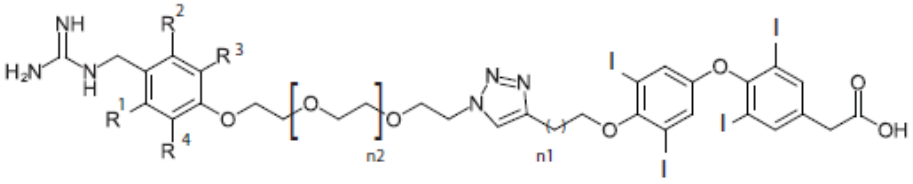
$n_2 \geq 1$; and

Y =

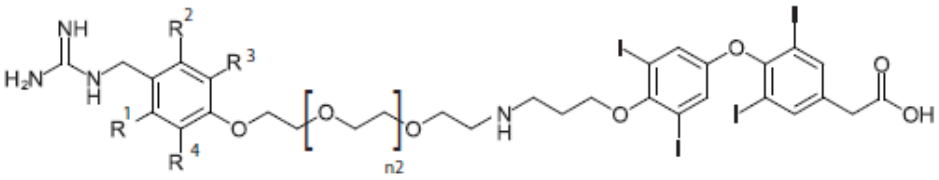


;

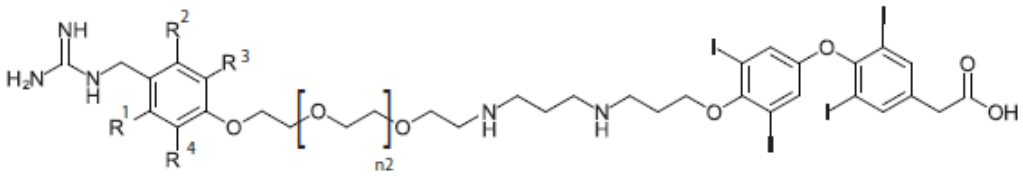
wherein the composition has a chemical formula selected from the group consisting of:



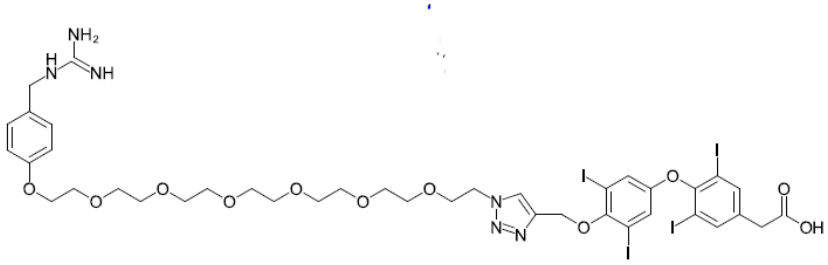
,



, and



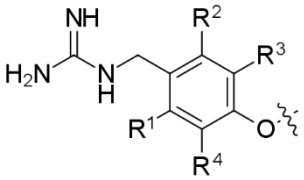
2. The composition of claim 1, wherein the composition has a chemical formula given by



3. The composition of Claim 1, wherein the composition includes N-benzyl guanidine.

4. The composition of claim 1, wherein the composition includes tetraiodothyroacetic acid.

5. The composition of claim 1,



wherein at least one of R1, R2, R3, and R4 is selected from the group consisting of Iodine-123, Iodine-131, and Flourine-18.

6. The composition of claim 5 for use in imaging a neuroendocrine tumor.

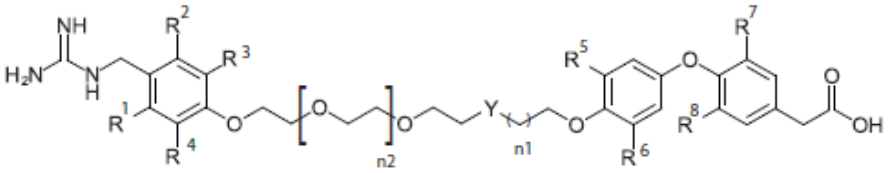
7. The composition of claim 5, for use in the treatment of a neuroendocrine tumor by administration in a therapeutic dose.

8. The composition of claim 5, for use in simultaneous imaging and treatment of a neuroendocrine tumor.

9. A composition for use in the dual targeting of tumor cells, comprising:

administering a composition comprising:

a compound of a general formula:



or a salt thereof;

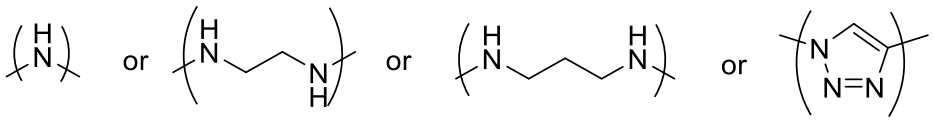
wherein R1, R2, R3, and R4 are each independently selected from the group consisting of hydrogen, iodine, fluorine, bromine, a methoxy group, a nitro group, an amine group, and a nitrile group;

wherein R5, R6, R7, and R8 are each independently selected from the group consisting of hydrogen, iodine, and an alkane group; and

$n_1 \geq 0$;

$n_2 \geq 1$; and

Y =



; and

wherein the compound comprises a thyrointegrin αvβ3 receptor antagonist selected from the group consisting of triiodothyroacetic acid and tetraiodothyroacetic acid.

10. The composition for use of claim 9, wherein the compound includes N-benzyl guanidine.

11. A composition comprising:

N-benzyl guanidine; and

tetraiodothyroacetic;

wherein the N-benzyl guanidine and the tetraiodothyroacetic are conjugated by polyethylene glycol.

12. The composition of claim 11, for use in imaging a neuroendocrine tumor; treatment of a neuroendocrine tumor by administration in a therapeutic dose; and/or simultaneous imaging and treatment of a neuroendocrine tumor αvβ3 integrin receptors.