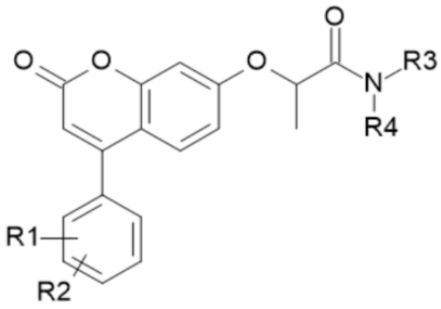
CLAIMS

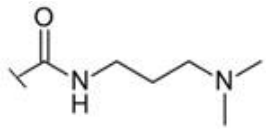
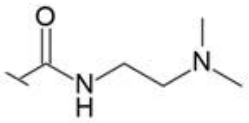
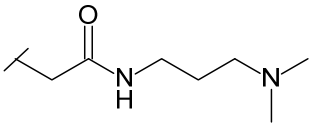
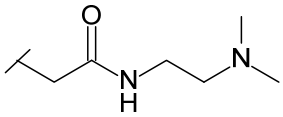
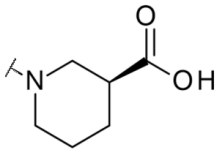
1. A compound having the chemical structure:

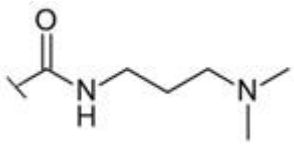
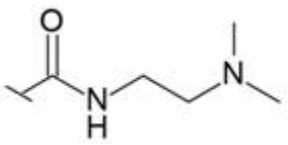
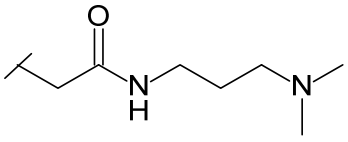
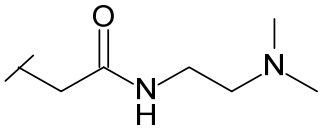


, or a pharmaceutically acceptable salt thereof,

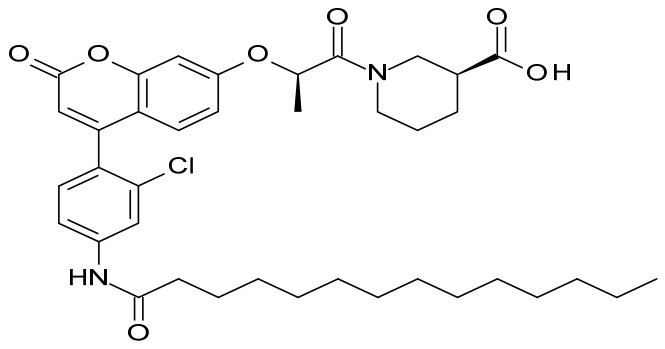
wherein:

- R1 and R2 may be the same or different, and are selected from a halogen, CF_2H, -CF_3, -OCF_2H, -OCF_3, substituted or unsubstituted C5-C18 carboxyl, substituted or unsubstituted C5-C18 alkane, substituted or unsubstituted C5-C18 alkene, substituted or unsubstituted C5-C18 cyclic alkene, substituted or unsubstituted C5-C18 alkyne, substituted or unsubstituted C5-C18 ketone, substituted or unsubstituted C5-C18 aldehyde, substituted or unsubstituted C5-C18 ether, substituted or unsubstituted C5-C18 ester, substituted or unsubstituted C5-C18 amine, substituted or unsubstituted C5-C18 amide, substituted or unsubstituted C5-C18 alkyl-amide, monocyclic or polycyclic arene, heteroarene, phenol, or benzoic acid; and
- R3 and R4 may be the same or different, and are selected from hydrogen, substituted or unsubstituted C2-C18-alkyl, substituted or unsubstituted C3-C8-cycloalkyl, substituted or unsubstituted pyridine, substituted or unsubstituted C2-C18 carboxyl, substituted or unsubstituted C2-C18 alkene, substituted or unsubstituted C2-C18 alkyne, substituted or unsubstituted C2-C18 ketone, substituted or unsubstituted C2-C18 aldehyde, substituted or

unsubstituted C2-C18 ether, substituted or unsubstituted C2-C18 ester, substituted or unsubstituted C2-C18 amine, substituted or unsubstituted C2-C18 amide, substituted or unsubstituted C2-C18 alkyl-amide, substituted or unsubstituted phenol, or benzoic acid, or one of R3 and R4 is the group , ,  or , and the other is a H or a C2-C5 alkyl; or R3 and R4 form a substituted or unsubstituted C5 or C6 heterocycle; or R3 and R4 form the group ; or NR3R4 is OH;

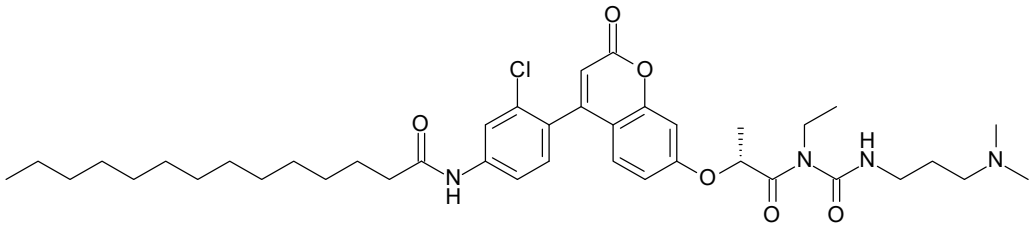
- provided that at least one of R1 and R2 is a substituted or unsubstituted C5-C18 amide, or at least one of R3 and R4 is the group , ,  or , and the other is a H or a C2-C5 alkyl.

2. The compound of claim 1, having the structure:



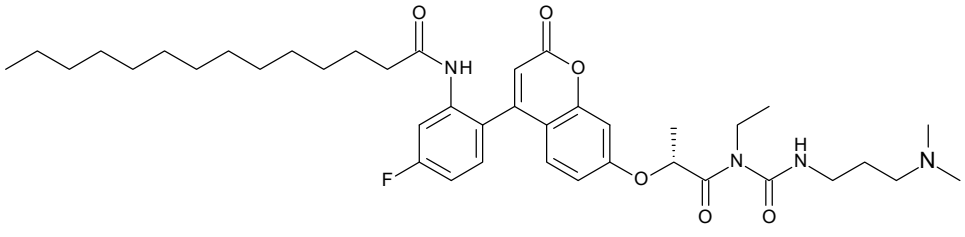
, or a pharmaceutically acceptable salt thereof.

3. The compound of claim 1, having the structure:



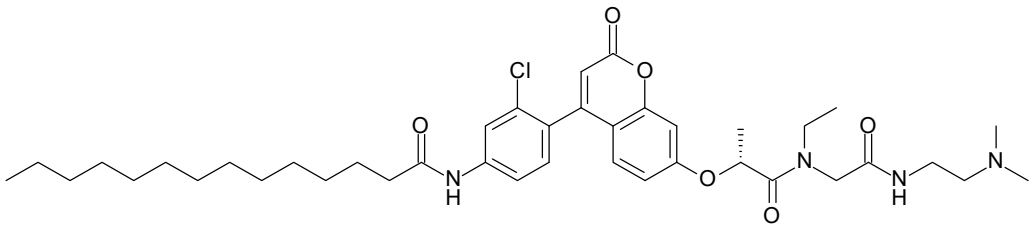
, or a pharmaceutically acceptable salt thereof.

4. The compound of claim 1, having the structure:



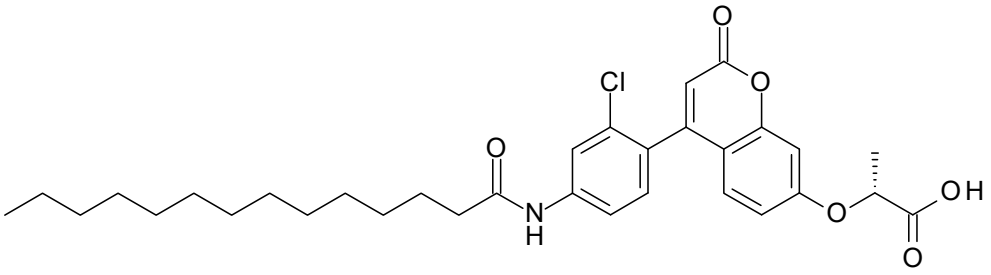
, or a pharmaceutically acceptable salt thereof.

5. The compound of claim 1, having the structure:



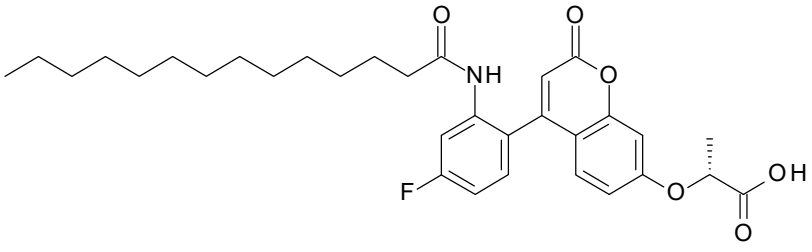
, or a pharmaceutically acceptable salt thereof.

6. The compound of claim 1, having the structure:



, or a pharmaceutically acceptable salt thereof.

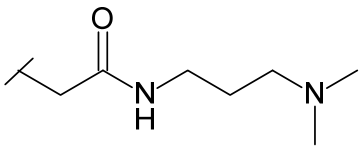
7. The compound of claim 1, having the structure:



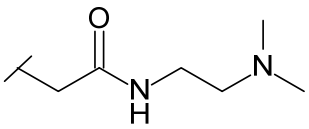
, or a pharmaceutically acceptable salt thereof.

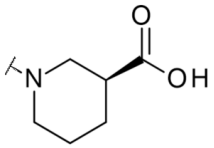
8. The compound of claim 1, wherein one of R1 and R2 is a halogen.

9. The compound of claim 1, wherein one of R3 and R4 is the group

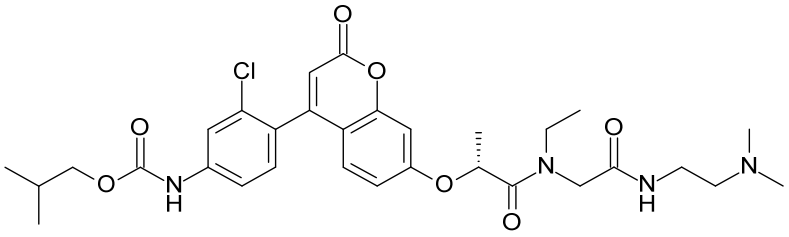


and the other is a C2-C5 alkyl.

10. The compound of claim 1, wherein one of R3 and R4 is the group  and the other is a C2-C5 alkyl.

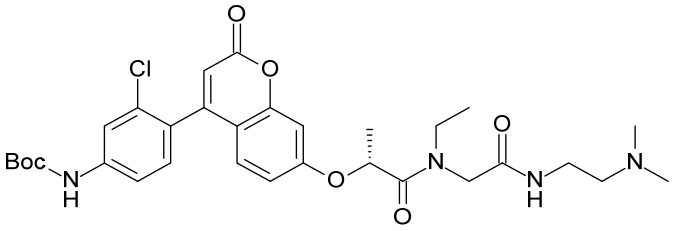
11. The compound of claim 1, wherein R3 and R4 form the group .

12. The compound of claim 1, having the structure:



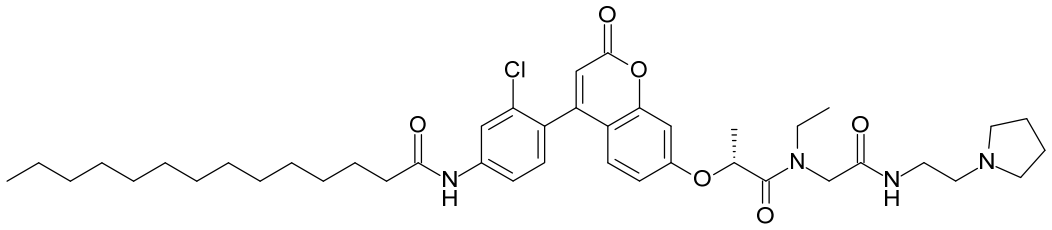
, or a pharmaceutically acceptable salt thereof.

13. The compound of claim 1, having the structure:



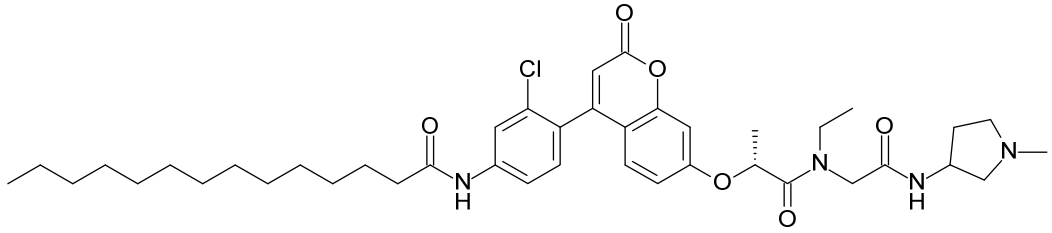
, or a pharmaceutically acceptable salt thereof.

14. The compound of claim 1, having the structure:



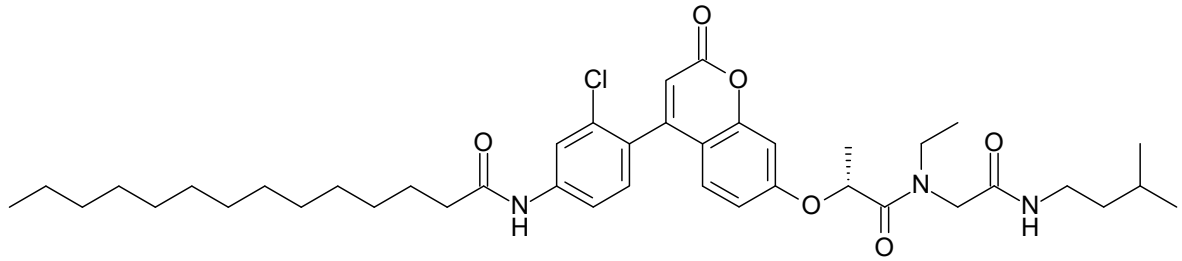
, or a pharmaceutically acceptable salt thereof.

15. The compound of claim 1, having the structure:



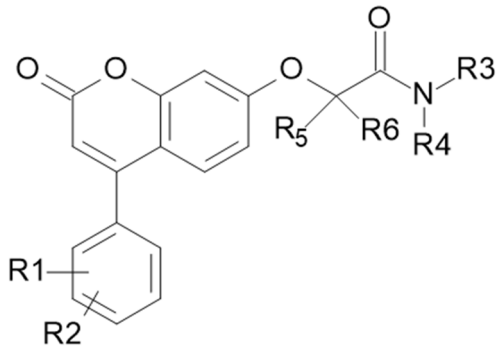
, or a pharmaceutically acceptable salt thereof.

16. The compound of claim 1, having the structure:



, or a pharmaceutically acceptable salt thereof.

17. A compound having the chemical structure:

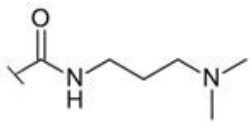
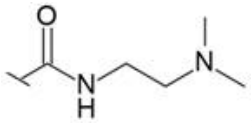
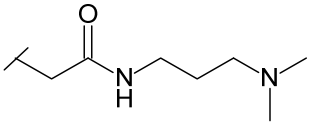
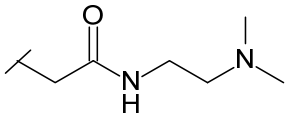
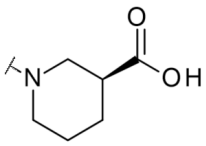


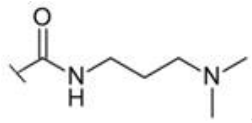
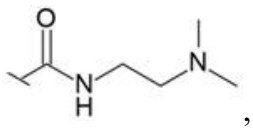
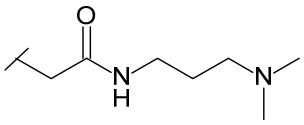
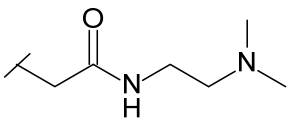
, or a pharmaceutically acceptable salt thereof,

wherein:

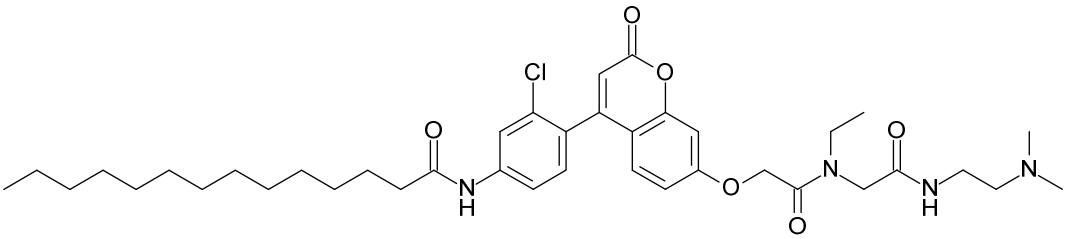
- R1 and R2 may be the same or different, and are selected from a halogen, CF_2H, -CF_3, -OCF_2H, -OCF_3, substituted or unsubstituted C5-C18 carboxyl, substituted or unsubstituted C5-C18 alkane, substituted or unsubstituted C5-C18 alkene, substituted or unsubstituted C5-C18 cyclic alkene, substituted or unsubstituted C5-C18 alkyne, substituted or unsubstituted C5-C18 ketone, substituted or unsubstituted C5-C18 aldehyde, substituted or unsubstituted C5-C18 ether, substituted or unsubstituted C5-C18 ester, substituted or unsubstituted C5-C18 amine, substituted or unsubstituted C5-C18 amide, substituted or unsubstituted C5-C18 alkyl-amide, monocyclic or polycyclic arene, heteroarene, phenol, or benzoic acid;
- R5 and R6 may be the same or different, and are selected from hydrogen, substituted or unsubstituted C1-C10 alkyl, substituted or unsubstituted C3-C8-cycloalkyl, substituted or unsubstituted pyridine, substituted or unsubstituted C2-C10 carboxyl, substituted or unsubstituted C2-C10 alkene, substituted or unsubstituted C2-C10 alkyne, substituted or unsubstituted C2-C10 ketone, substituted or unsubstituted C2-C10 aldehyde, substituted or

unsubstituted C2-C10 ether, substituted or unsubstituted C2-C10 ester, substituted or unsubstituted C2-C10 amine, substituted or unsubstituted C2-C10 amide, substituted or unsubstituted C2-C10 alkyl-amide, substituted or unsubstituted phenol, or benzoic acid; and

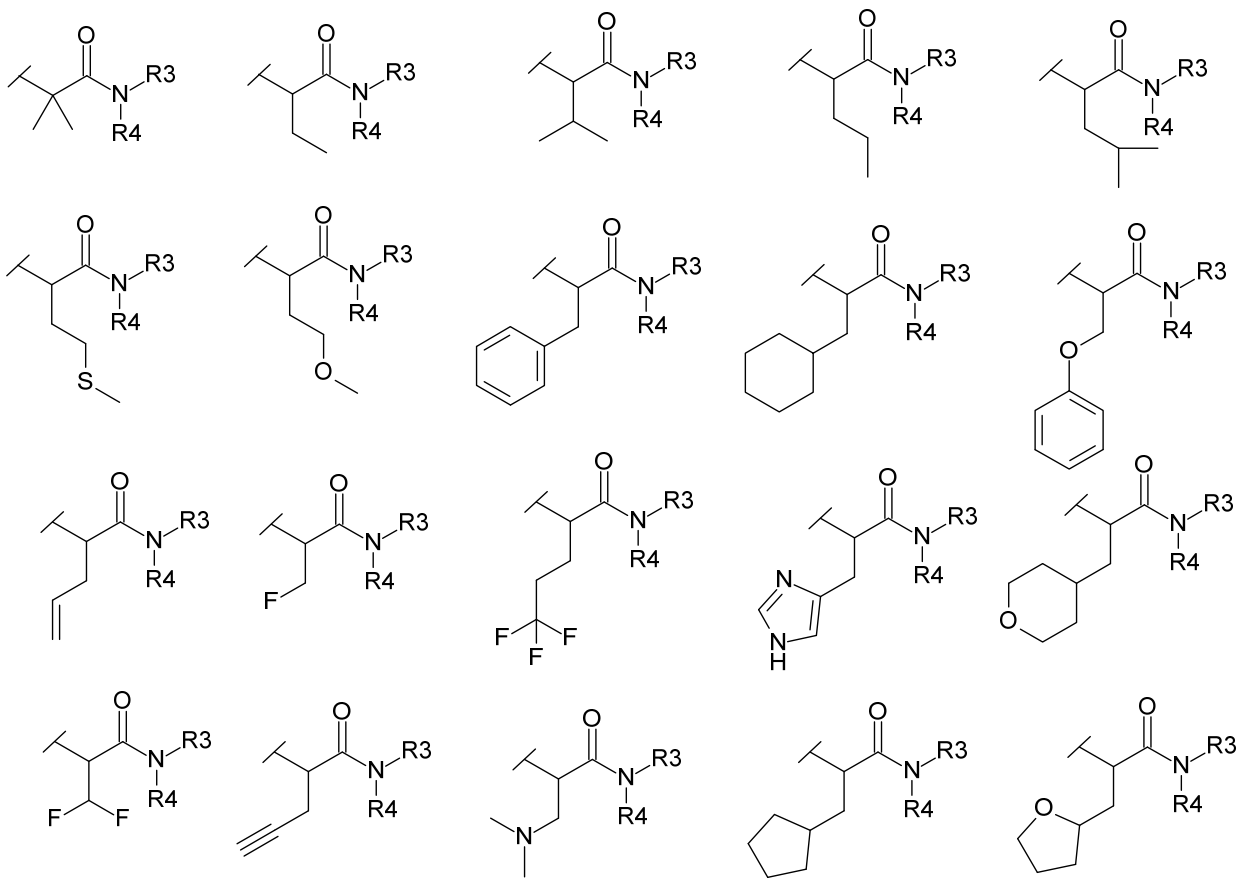
- R3 and R4 may be the same or different, and are selected from hydrogen, substituted or unsubstituted C2-C18-alkyl, substituted or unsubstituted C3-C8-cycloalkyl, substituted or unsubstituted pyridine, substituted or unsubstituted C2-C18 carboxyl, substituted or unsubstituted C2-C18 alkene, substituted or unsubstituted C2-C18 alkyne, substituted or unsubstituted C2-C18 ketone, substituted or unsubstituted C2-C18 aldehyde, substituted or unsubstituted C2-C18 ether, substituted or unsubstituted C2-C18 ester, substituted or unsubstituted C2-C18 amine, substituted or unsubstituted C2-C18 amide, substituted or unsubstituted C2-C18 alkyl-amide, substituted or unsubstituted phenol, or benzoic acid, or one of R3 and R4 is the group , ,  or , and the other is a H or a C2-C5 alkyl; or R3 and R4 form a substituted or unsubstituted C5 or C6 heterocycle; or R3 and R4 form the group ; or NR3R4 is OH;

provided that at least one of R1 and R2 is a substituted or unsubstituted C5-C18 amide, or at least one of R3 and R4 is the group , ,  or , and the other is a H or a C2-C5 alkyl.

18. The compound of claim 17, having the structure:

, or a pharmaceutically acceptable salt thereof.

19. The compound of claim 17, wherein R5 and R6 are selected from the group consisting of:



20. A pharmaceutical composition comprising a pharmaceutically effective amount of the compound of any one of claims 1-14, and a pharmaceutically acceptable carrier.

21. Use of a pharmaceutical composition comprising the compound of any one of claims 1-14 in the manufacture of a medicament for treating or preventing tumor recurrence and/or metastasis.

22. The use of claim 21, wherein the medicament is suitable for administration at least one of prior to a cancer treatment, with a cancer treatment, and following a cancer treatment.

23. Use of a pharmaceutical composition comprising the compound of any one of claims 1-14 in the manufacture of a medicament for inhibiting the propagation of cancer stem cells.

24. The use of claim 23, wherein the medicament is suitable for administration at least one of prior to a cancer treatment, with a cancer treatment, and following a cancer treatment.

25. Use of a pharmaceutical composition comprising the compound of any one of claims 1-12 in the manufacture of a medicament for treating cancer.

26. The use of claim 25, wherein the medicament is suitable for administration at least one of prior to a cancer treatment, with a cancer treatment, and following a cancer treatment.