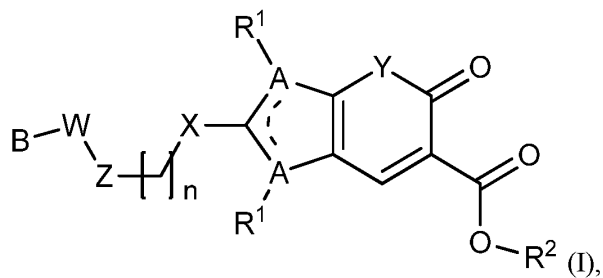


WHAT IS CLAIMED IS:

1. A compound represented by formula (I):



or a pharmaceutically acceptable salt thereof, wherein:

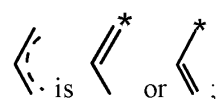
subscript n is 0, 1, or 2;

W is O, NH, or NR^{''};

X is O or NR^{''};

Y is O or NR^{''};

Z is a bond, CH₂, C=O, SO₂;



each A is independently selected from the group consisting of N, NR^{''}, S, O, CR^{''} and CHR^{''};

each R¹ is independently absent or selected from the group consisting of hydrogen, halogen, C₁₋₆

alkyl, CHF₂, CF₃, CN, -C(O)R^{''}, -C(O)OR^{''}, -SO₂R^{''}, -C(O)NR^{''}₂, -C(O)N(OR^{''})R^{''} and

—C≡CH;

R² is selected from the group consisting of:

hydrogen;

-C(O)R^{''};

-(CH₂)₀₋₄C(O)R^{''};

-(CH₂)₀₋₄C(O)OR^{''};

optionally substituted C₁₋₆ alkyl;

an optionally substituted 3-8 membered saturated or partially unsaturated cycloalkyl ring;

an optionally substituted 3-8 membered saturated or partially unsaturated

heterocycloalkyl ring having 1-2 heteroatoms independently selected from

nitrogen, oxygen, and sulfur;

24 optionally substituted phenyl; and
25 an optionally substituted 5-6 membered heteroaryl ring having 1-4 heteroatoms
26 independently selected from nitrogen, oxygen, and sulfur;
27 B is a ring selected from the group consisting of:
28 a 3-8 membered saturated or partially unsaturated monocyclic carbocyclic ring,
29 phenyl,
30 a 8-10 membered bicyclic aryl ring,
31 a 3-8 membered saturated or partially unsaturated monocyclic or bicyclic heterocyclic
32 ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, and
33 sulfur,
34 a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently
35 selected from nitrogen, oxygen, and sulfur, and
36 a 8-10 membered bicyclic heteroaryl ring having 1-4 heteroatoms independently selected
37 from nitrogen, oxygen, and sulfur,
38 wherein B is optionally substituted with one or more substituents selected from R' and
39 R'';
40 R' is selected from the group consisting of OH, C₁₋₆ haloalkyl, C₁₋₆ alkoxy, C₁₋₆ haloalkoxy, and
41 O-phenyl optionally substituted with halogen, C₁₋₆ alkyl, or C₁₋₆ alkoxy;
42 R'' is selected from the group consisting of:
43 R¹;
44 a 3-8 membered saturated or partially unsaturated cycloalkyl ring, optionally substituted
45 with halogen or C₁₋₆ alkyl;
46 a 3-8 membered saturated or partially unsaturated heterocycloalkyl ring having 1-2
47 heteroatoms independently selected from nitrogen, oxygen, and sulfur, said ring
48 optionally substituted with halogen or C₁₋₆ alkyl;
49 phenyl optionally substituted with halogen, C₁₋₆ alkyl, or C₁₋₆ alkoxy; and
50 a 5-6 membered heteroaryl ring having 1-4 heteroatoms independently selected from
51 nitrogen, oxygen, and sulfur, said ring optionally substituted with halogen or C₁₋₆
52 alkyl.

1 2. The compound of claim 1, wherein:

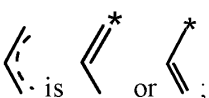
2 subscript n is 0, 1, or 2;

3 W is O, NH, or NR'';

4 X is O or NR'';

5 Y is O or NR'';

6 Z is a bond, CH₂, C=O, SO₂;

7  is  or  ;

8 each A is independently selected from the group consisting of N, NR'', S, O, CR'' and CHR'';

9 R¹, when present, is selected from the group consisting of hydrogen, halogen, C₁₋₆ alkyl, CHF₂,
10 CF₃, CN, -C(O)R'', -C(O)OR'', -SO₂R'', -C(O)NR''₂, -C(O)N(OR'')R'' and
11 —C≡CH;

12 R² is selected from the group consisting of:

13 hydrogen;

14 -C(O)R'';

15 -(CH₂)₀₋₄C(O)R'';

16 -(CH₂)₀₋₄C(O)OR'';

17 optionally substituted C₁₋₆ alkyl;

18 an optionally substituted 3-8 membered saturated or partially unsaturated cycloalkyl ring;

19 an optionally substituted 3-8 membered saturated or partially unsaturated

20 heterocycloalkyl ring having 1-2 heteroatoms independently selected from

21 nitrogen, oxygen, and sulfur;

22 optionally substituted phenyl; and

23 an optionally substituted 5-6 membered heteroaryl ring having 1-4 heteroatoms

24 independently selected from nitrogen, oxygen, and sulfur;

25 B is a ring selected from the group consisting of:

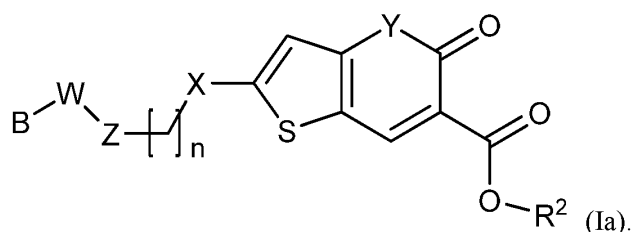
26 a 3-8 membered saturated or partially unsaturated monocyclic carbocyclic ring;

27 phenyl;

28 a 8-10 membered bicyclic aryl ring;

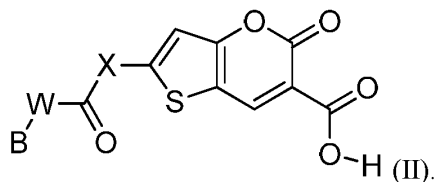
- 29 a 3-8 membered saturated or partially unsaturated monocyclic or bicyclic heterocyclic
 30 ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, and
 31 sulfur;
 32 a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently
 33 selected from nitrogen, oxygen, and sulfur; and
 34 a 8-10 membered bicyclic heteroaryl ring having 1-4 heteroatoms independently selected
 35 from nitrogen, oxygen, and sulfur,
 36 wherein B is optionally substituted with one or more R'' substituents;
 37 R'' is selected from the group consisting of:
 38 R¹;
 39 a 3-8 membered saturated or partially unsaturated cycloalkyl ring, optionally substituted
 40 with halogen or C₁₋₆ alkyl;
 41 a 3-8 membered saturated or partially unsaturated heterocycloalkyl ring having 1-2
 42 heteroatoms independently selected from nitrogen, oxygen, and sulfur, said ring
 43 optionally substituted with halogen or C₁₋₆ alkyl;
 44 phenyl optionally substituted with halogen or C₁₋₆ alkyl; and
 45 a 5-6 membered heteroaryl ring having 1-4 heteroatoms independently selected from
 46 nitrogen, oxygen, and sulfur, said ring optionally substituted with halogen or C₁₋₆
 47 alkyl.

- 1 3. The compound of claims 1 or 2, wherein the compound of formula (I) is
 2 represented by formula (Ia):

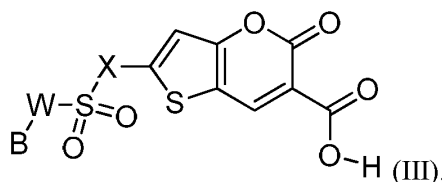


- 1 4. The compound of any one of claims 1 to 3, wherein subscript n is 0; Y is
 2 O; and R² is hydrogen.

- 1 5. The compound of any one of claims 1 to 4, wherein the compound of
2 formula (I) is represented by formula (II):



- 1 6. The compound of any one of claims 1 to 4, wherein the compound of
2 formula (I) is represented by formula (III):



- 1 7. The compound of any one of claims 1 to 6, wherein X is O, NH or NMe.

- 1 8. The compound of any one of claims 1 to 7, wherein W is NH or NMe.

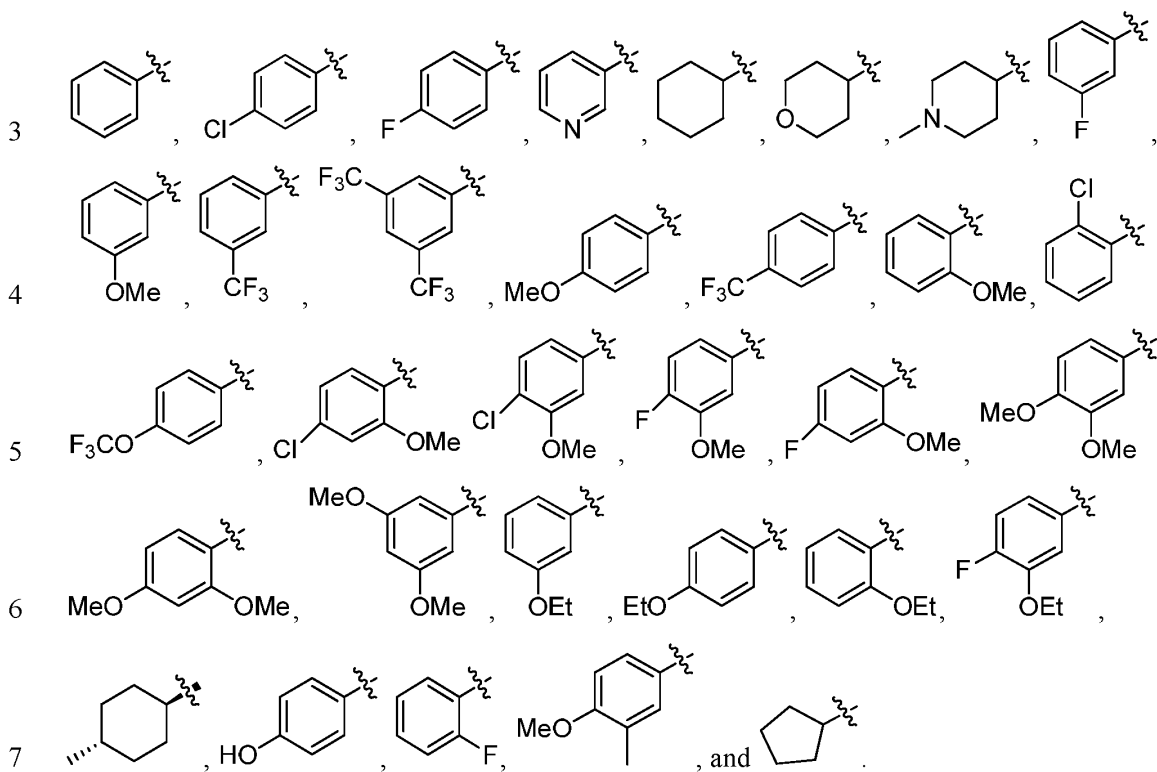
- 1 9. The compound of any one of claims 1, and 3 to 8, wherein B is a ring
2 selected from the group consisting of:

- 3 a 5-6 membered saturated or partially unsaturated monocyclic carbocyclic ring,
4 phenyl,
5 a 8-10 membered bicyclic aryl ring,
6 a 5-8 membered saturated or partially unsaturated monocyclic or bicyclic heterocyclic
7 ring having 1-2 heteroatoms independently selected from nitrogen, oxygen, and
8 sulfur,
9 a 5-6 membered monocyclic heteroaryl ring having 1-4 heteroatoms independently
10 selected from nitrogen, oxygen, and sulfur, and
11 a 8-10 membered bicyclic heteroaryl ring having 1-4 heteroatoms independently selected
12 from nitrogen, oxygen, and sulfur,
13 wherein B is optionally substituted with one or more substituents selected from R' and
14 R".

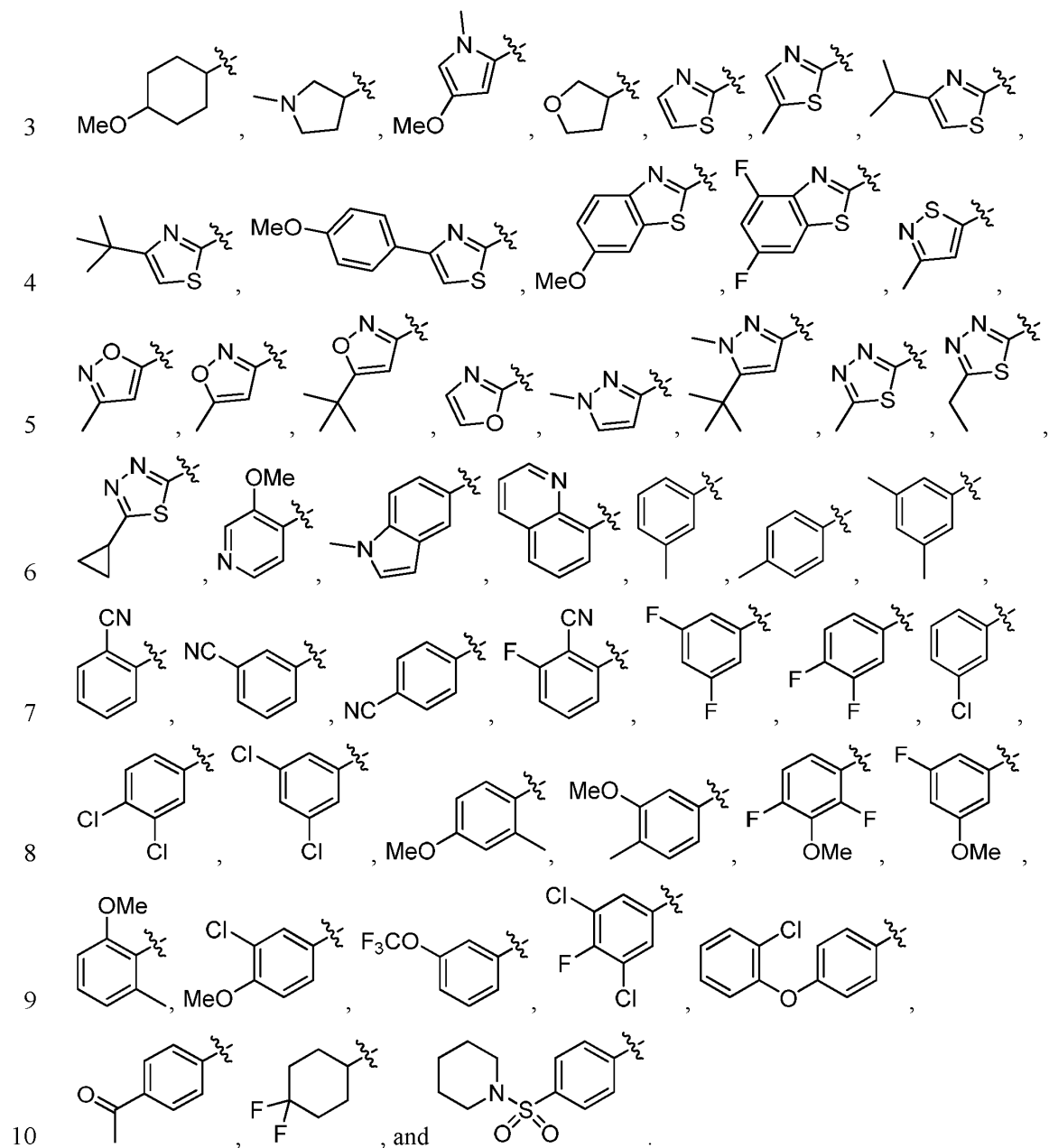
1 **10.** The compound of claim **9**, wherein B is optionally substituted with one or
 2 more substituents selected from the group consisting of halogen, OH, CN, C₁₋₆ alkyl, C₁₋₆
 3 haloalkyl, C₁₋₆ alkoxy, and C₁₋₆ haloalkoxy.

1 **11.** The compound of claim **9**, wherein B is optionally substituted with one or
 2 more substituents selected from the group consisting of F, Cl, OH, CN, methyl, ethyl, isopropyl,
 3 tert-butyl, cyclopropyl, CF₃, OMe, OEt, OCF₃, and C(O)Me.

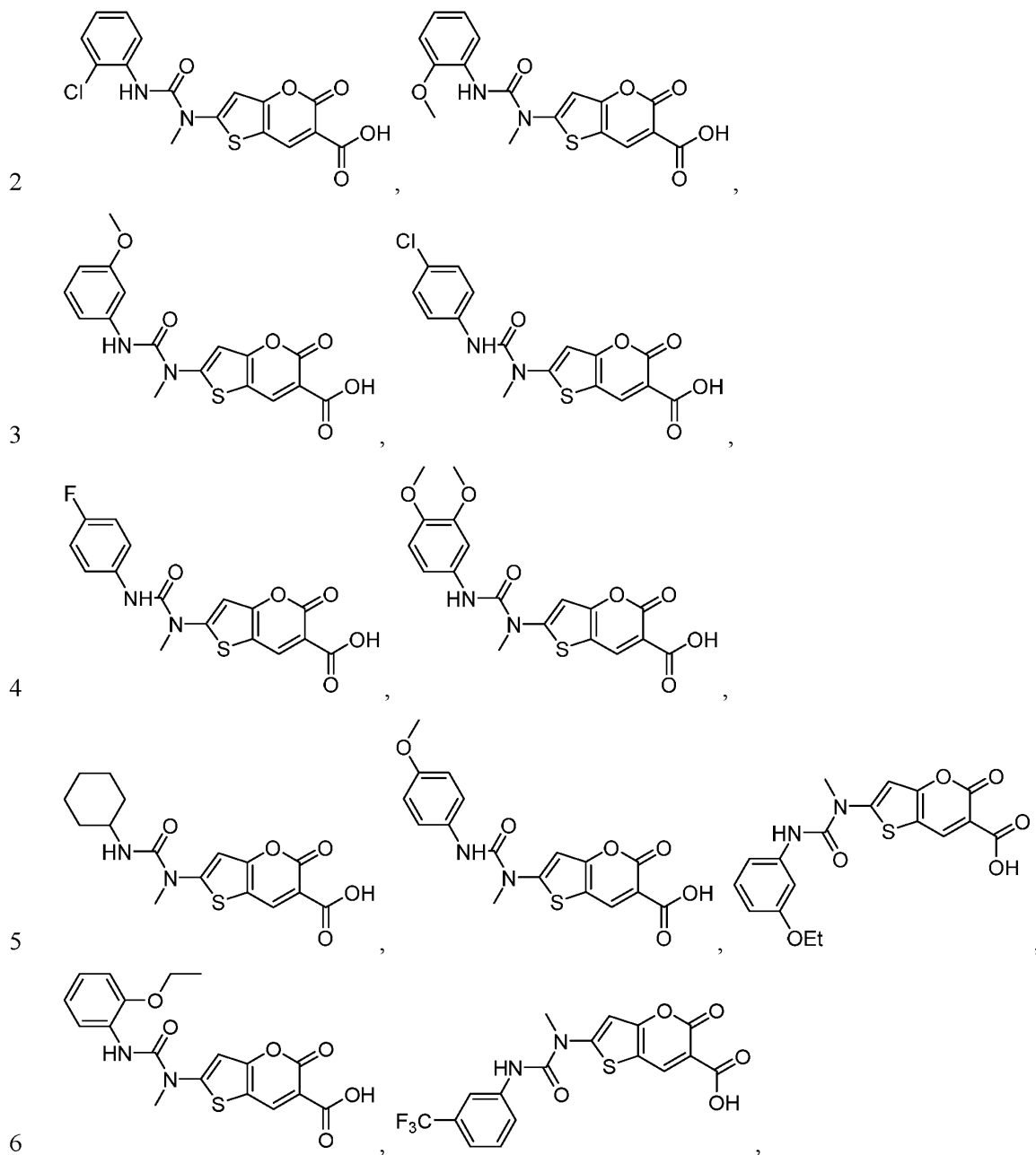
1 **12.** The compound of any one of claims **9** to **11**, wherein B is selected from
 2 the group consisting of:

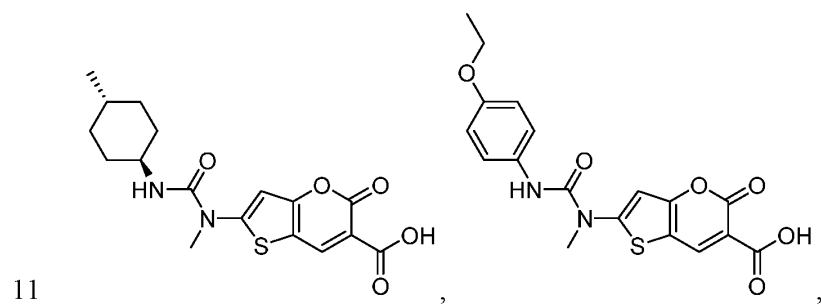
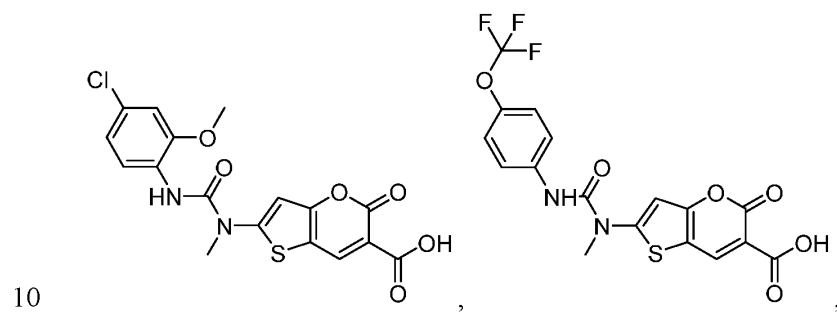
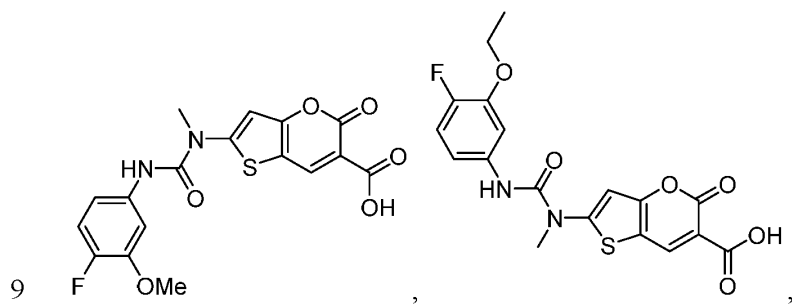
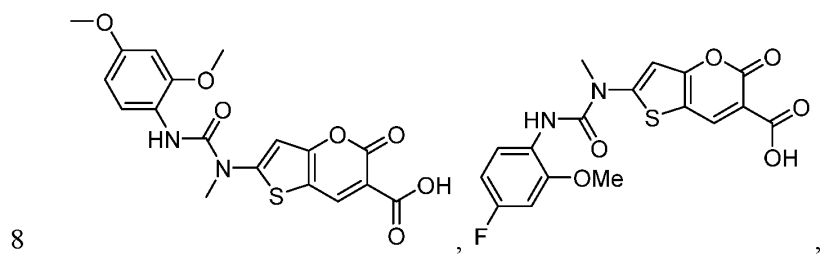
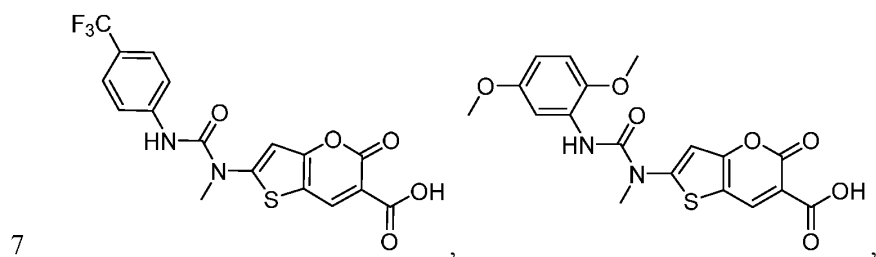


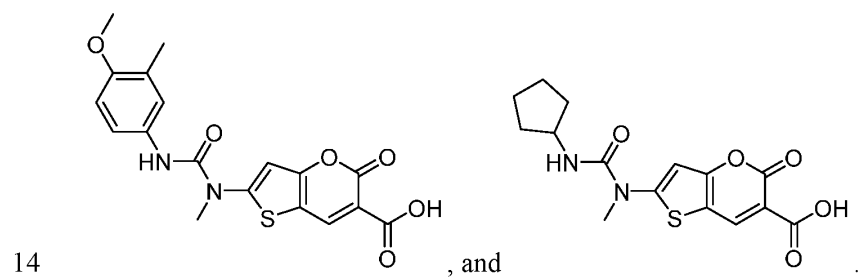
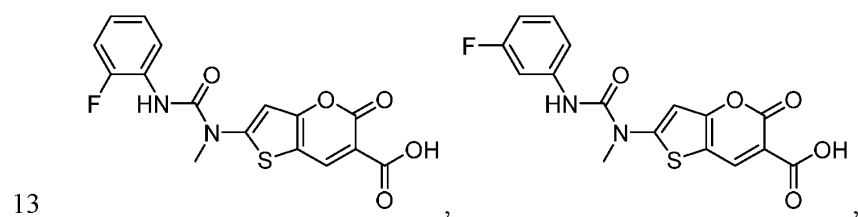
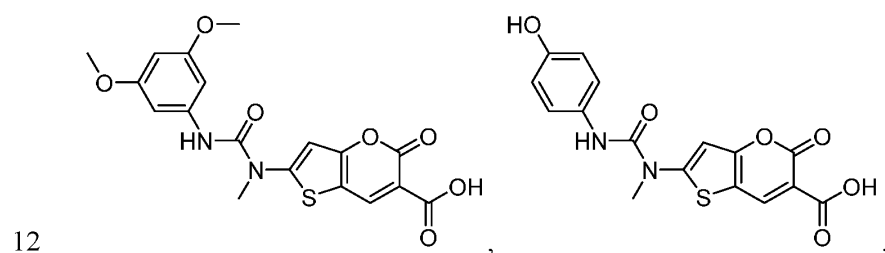
1 13. The compound of claim 9, wherein B is selected from the group consisting
2 of:



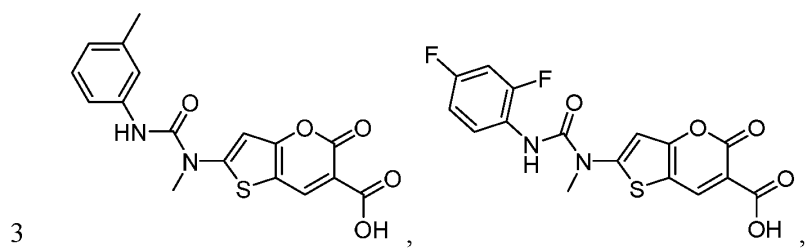
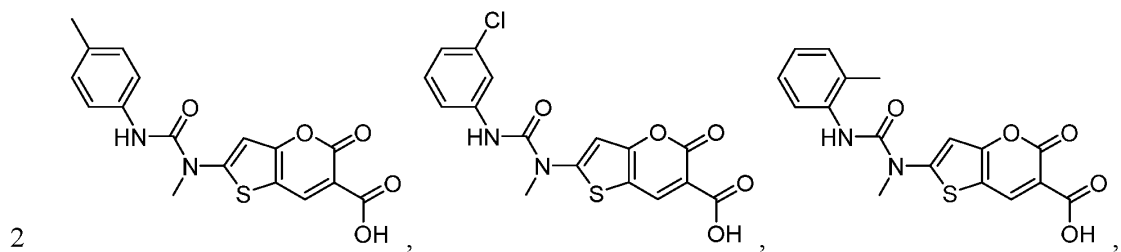
1 14. The compound of claim 1, selected from the group consisting of:

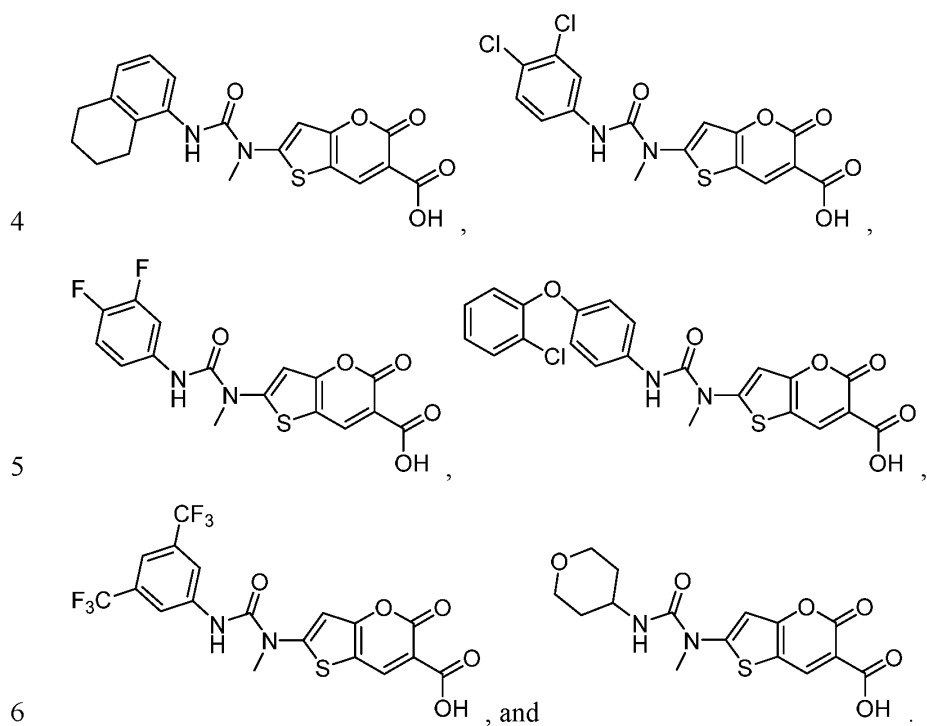




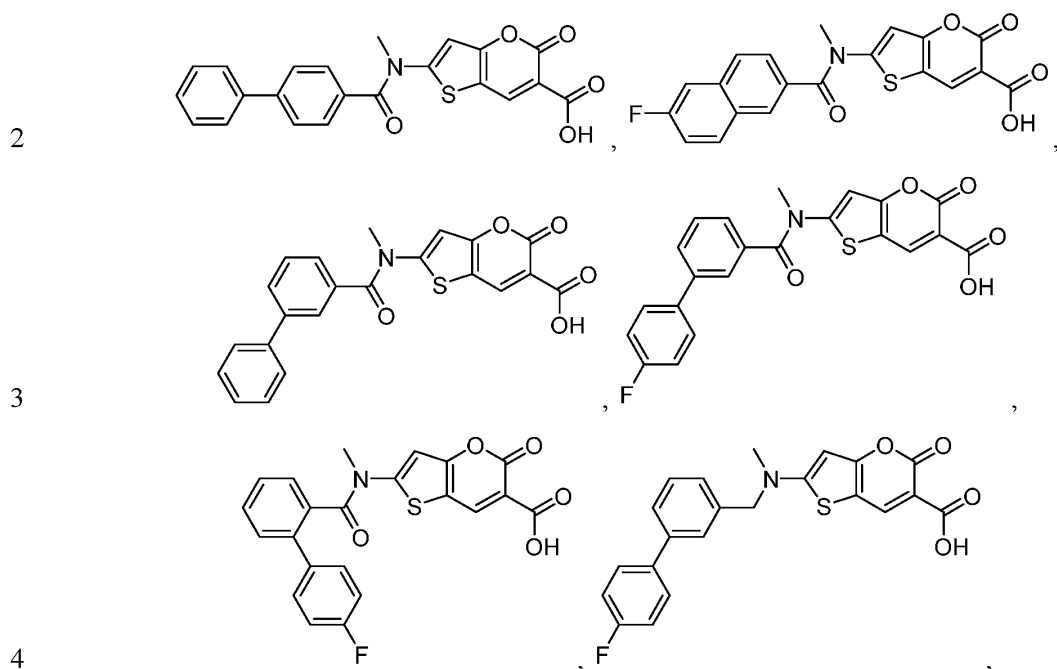


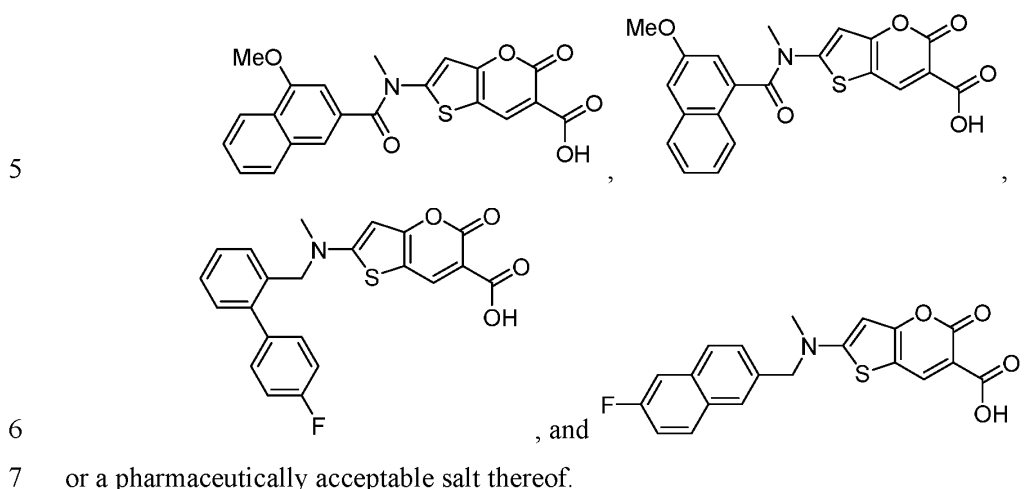
1 15. The compound of claim 1, selected from the group consisting of:



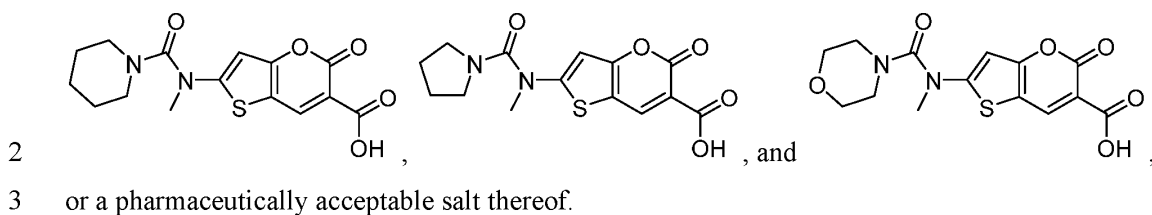


16. A compound, selected from the group consisting of:





1 **17.** A compound, selected from the group consisting of:



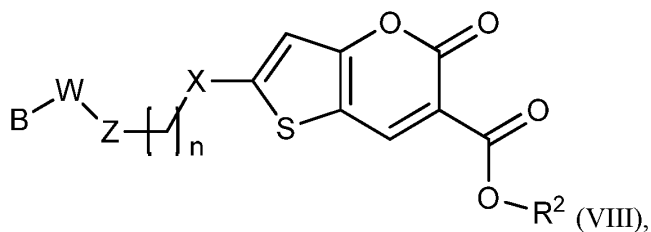
1 **18.** A pharmaceutical composition comprising a compound of any one of
2 claims **1** to **17**, and a pharmaceutically acceptable carrier.

1 **19.** A method for modulating monocarboxylate transport comprising
2 contacting a monocarboxylate transport protein with a therapeutically effective amount of a
3 compound according to any one of claims **1** to **17**.

1 **20.** A method for treating a disorder associated with monocarboxylate
2 transport comprising administering a therapeutically effective amount of a compound according
3 to any one of claims **1** to **17**.

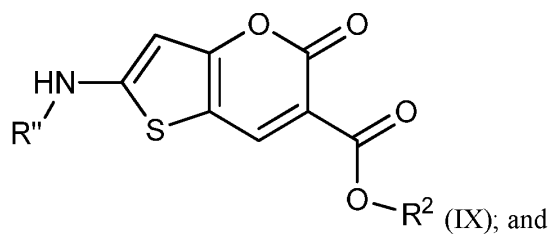
1 **21.** The method of claim **20**, wherein the disorder is selected from the group
2 consisting of cancer, neoplastic disorders, disorders of abnormal tissue growth, disorders of
3 immune system, and tissue and organ rejection.

22. A process for preparing a compound of formula (VIII):

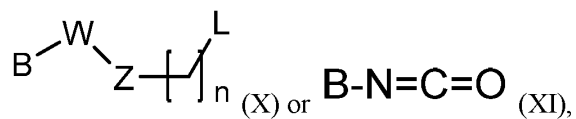


or a pharmaceutically acceptable salt thereof, comprising:

a) providing a compound of formula (IX):

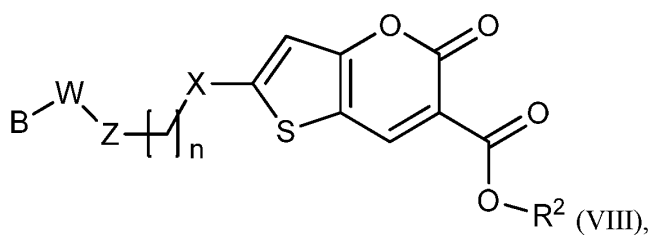


b) reacting with a compound of formula (X) or (XI):



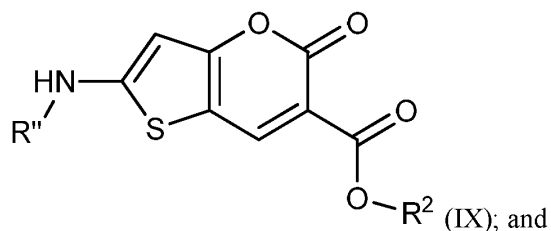
wherein L is H, OH, or halogen; and subscript n, B, W, Z, X, R^2 , and R'' are defined according to claim 1.

23. A process for preparing a compound of formula (VIII):



or a pharmaceutically acceptable salt thereof, comprising:

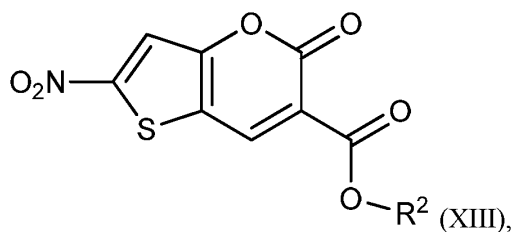
a) providing a compound of formula (IX):



5

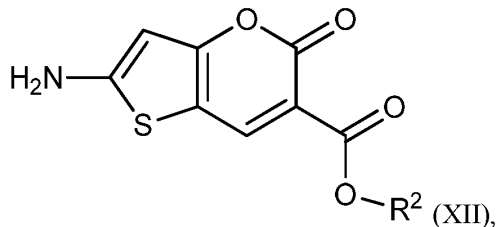
6 b) reacting with thiophosgene and an aniline of formula B-NH₂,7 wherein subscript n, B, W, Z, X, R², and R'' are defined according to claim 1.

1

2 **24.** The process of claim **22** or **23**, wherein, when R'' is hydrogen in formula (IX), the process further comprising reacting a compound of formula (XIII):

3

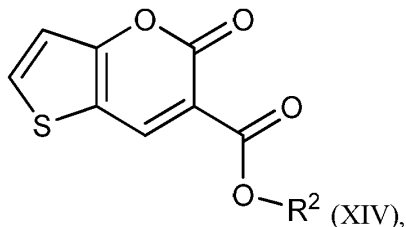
4 with a reducing agent to provide a compound of formula (XII):



5

6 or a salt thereof, wherein R² is defined according to claim 1.

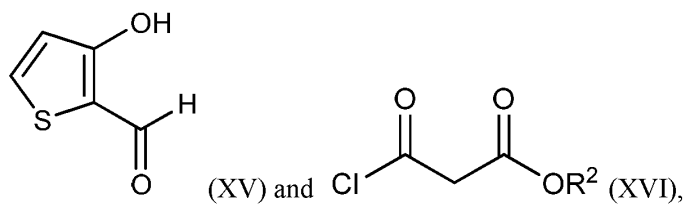
1

2 **25.** The process of claim **24**, further comprising reacting a compound of formula (XIV):

3

4 with a nitration agent to provide the compound of formula (XIII).

1 **26.** The process of claim **25**, further comprising reacting a compound of
2 formula (XV) with a compound of formula (XVI):



4 to provide the compound of formula (XIV).

1