

COMPOUND FOR TREATING GOUT OR HYPERURICEMIA

CROSS-REFERENCE

[0001] This application claims benefit of U.S. Provisional Application No. 62/847,519, filed on May 14, 2019, which is herein incorporated by reference in its entirety.

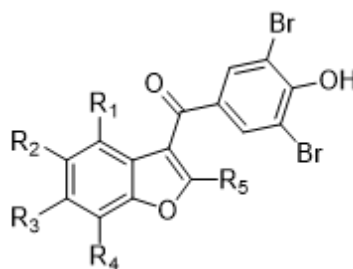
BACKGROUND

[0002] Hyperuricemia is caused by the overproduction or under-excretion of uric acid, and is considered to be a causative factor of several diseases that significantly impair the quality of life. For example, hyperuricemia is considered the causative factor of gout – the most prevalent form of inflammatory arthritis, characterized by severe pain and tenderness in joints caused by urate crystal accumulation. The identification of a gout/hyperuricemia drug effective in lowering serum uric acid (sUA) with reduced toxicity represents an unmet medical need that would have beneficial impact on patients.

SUMMARY

[0002a] In one aspect of the present disclosure, there is provided a compound that is:

- (i) (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof;
- (ii) a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof:

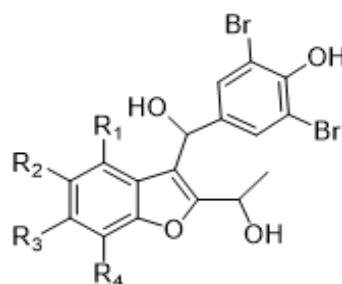


Formula (I);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium; and R₅ is -CH₂CH₂(OH) or -CH(OH)CH₂(OH); or

(iii) a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof:



Formula (II);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium.

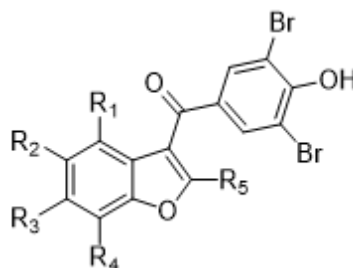
[0002b] In another aspect of the present disclosure, there is provided a use of a compound as disclosed herein, or a pharmaceutically acceptable salt or solvate thereof, in the manufacture of a medicament for treating or preventing hyperuricemia or gout in an individual in need thereof.

[0002c] In a further aspect of the present disclosure, there is provided a pharmaceutical composition comprising a compound as disclosed herein, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.

[0002d] In another aspect of the present disclosure, there is provided a compound as disclosed herein, or a pharmaceutically acceptable salt or solvate thereof, for use in therapy.

[0003] In one example, described herein is a compound that is (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof.

[0004] In another example, described herein is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof:



Formula (I);

wherein:

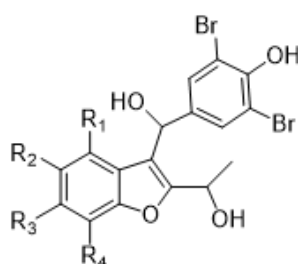
R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium;
and

R₅ is -CH₂CH₃, -CH₂CH₂(OH), or -CH(OH)CH₂(OH).

[0005] In some examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein at least two of R₁, R₂, R₃, and R₄ is deuterium. In some

examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein at least three of R₁, R₂, R₃, and R₄ is deuterium. In some examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein R₁, R₂, R₃, and R₄ are deuterium. In some examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein R₅ is -CH₂CH₃. In some examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein R₅ is -CH₂CH₂(OH). In some examples is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof, wherein R₅ is -CH(OH)CH₂(OH).

[0006] In another example, described herein is a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof:



Formula (II);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium.

[0007] In some examples is a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, wherein at least two of R₁, R₂, R₃, and R₄ is deuterium. In some examples is a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, wherein at least three of R₁, R₂, R₃, and R₄ is deuterium. In some examples is a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, wherein at least one of R₁, R₂, R₃, and R₄ is hydroxy.

[0008] In another example, described herein is a method for treating or preventing hyperuricemia or gout in an individual in need thereof, comprising administering to the individual a therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, described herein. In another example, described herein is a method for treating or preventing hyperuricemia or gout in an individual in need thereof, comprising administering to the individual a therapeutically effective amount of a compound of Formula (I) or (II) described herein, or a pharmaceutically acceptable salt or solvate thereof. In some examples is a method for treating or preventing hyperuricemia in an individual in need thereof. In some

examples is a method for treating hyperuricemia in an individual in need thereof. In some examples is a method for preventing hyperuricemia in an individual in need thereof. In some examples is a method for treating or preventing gout in an individual in need thereof. In some examples is a method for treating gout in an individual in need thereof. In some examples is a method for preventing gout in an individual in need thereof. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is from about 3 mg to about 1500 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is from about 3 mg to about 600 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is from about 5 mg to about 300 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is from about 10 mg to about 200 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is from about 10 mg to about 100 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered orally. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is taken with food. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is taken without food. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered to the individual once per day. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered to the individual twice per day. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-

hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with at least one additional therapeutic agent. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with a xanthine oxidase inhibitor. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with a xanthine oxidase inhibitor selected from allopurinol, oxypurinol, febuxostat, topiroxostat, and inositol. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with a sodium-glucose co-transporter-2 (SGLT2) inhibitor. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with an SGLT2 inhibitor selected from canagliflozin, dapagliflozin, empagliflozin, empagliflozin/linagliptin, empagliflozin/metformin, and dapagliflozin/metformin. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with a xanthine oxidase inhibitor and a SGLT2 inhibitor. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, is administered with a xanthine oxidase inhibitor and a SGLT2 inhibitor, wherein the xanthine oxidase inhibitor is selected from allopurinol, oxypurinol, febuxostat, topiroxostat, and inositol, and the SGLT2 inhibitor is selected from canagliflozin, dapagliflozin, empagliflozin, empagliflozin/linagliptin, empagliflozin/metformin, and dapagliflozin/metformin.

[0009] In some examples is a pharmaceutical composition comprising (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.

[0010] In some examples is a pharmaceutical composition comprising a compound of Formula (I) or (II) described herein, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.

[0011] In another example is a pharmaceutical composition for the treatment or prevention of hyperuricemia or gout, wherein the pharmaceutical composition comprises a therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.

In another example is a pharmaceutical composition for the treatment or prevention of hyperuricemia or gout, wherein the pharmaceutical composition comprises a therapeutically effective amount of a compound of Formula (I) or (II) described herein, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.

In some examples is a pharmaceutical composition for the treatment or prevention of hyperuricemia in an individual in need thereof. In some examples is a pharmaceutical composition for the treatment of hyperuricemia in an individual in need thereof. In some examples is a pharmaceutical composition for the prevention of hyperuricemia in an individual in need thereof. In some examples is a pharmaceutical composition for the treatment or prevention of gout in an individual in need thereof. In some examples is a pharmaceutical composition for the treatment of gout in an individual in need thereof. In some examples is a pharmaceutical composition for the prevention of gout in an individual in need thereof. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is from about 3 mg to about 1500 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is from about 3 mg to about 600 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is from about 5 mg to about 300 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is from about 10 mg to about 200 mg. In some examples, the therapeutically effective amount of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate

thereof, is from about 10 mg to about 100 mg. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is formulated for oral, intravenous, intramuscular, or subcutaneous administration. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is formulated for oral administration. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is taken with food. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is taken without food. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is administered to the individual once per day. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, is administered to the individual twice per day. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises at least one additional therapeutic agent. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises a xanthine oxidase inhibitor. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7- d_3)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises a xanthine oxidase inhibitor selected from allopurinol, oxypurinol, febuxostat, topiroxostat, and inositol. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-

hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises an SGLT2 inhibitor. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises an SGLT2 inhibitor selected from canagliflozin, dapagliflozin, empagliflozin, empagliflozin/linagliptin, empagliflozin/metformin, and dapagliflozin/metformin. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises a xanthine oxidase inhibitor and an SGLT2 inhibitor. In some examples, the pharmaceutical composition of (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, a compound of Formula (I), or a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof, further comprises a xanthine oxidase inhibitor and an SGLT2 inhibitor, wherein the xanthine oxidase inhibitor is selected from allopurinol, oxypurinol, febuxostat, topiroxostat, and inositol, and the SGLT2 inhibitor is selected from canagliflozin, dapagliflozin, empagliflozin, empagliflozin/linagliptin, empagliflozin/metformin, and dapagliflozin/metformin.

INCORPORATION BY REFERENCE

[0012] All publications, patents, and patent applications mentioned in this specification are herein incorporated by reference to the extent applicable and relevant and to the same extent as if each individual publication, patent, or patent application was specifically and individually indicated to be incorporated by reference.

DETAILED DESCRIPTION OF THE INVENTION

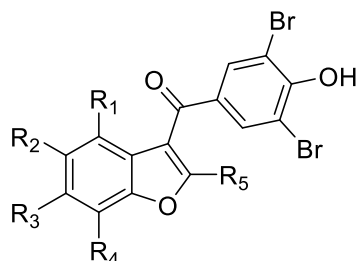
[0013] Benzbromarone is a uricosuric agent effective in lowering serum uric acid sUA and treating gout. It has been found that therapy using benzbromarone can lead to lowering of sUA even following a single dose and continue to be lowered following multiple doses, and that chronic therapy can bring sUA into target levels of <6 mg/dL. However, in certain patients, benzbromarone is associated with hepatotoxicity. A high proportion of these patients developed acute liver failure leading to death or emergency liver transplantation. As a result, benzbromarone was never approved for use in the United States. In addition, the hepatotoxicity of benzbromarone led to its withdrawal in Europe in 2003. Benzbromarone is converted to reactive metabolites by CYP2C9. Benzbromarone is metabolized to 5,6-

CLAIMS

We Claim:

1. A compound that is:

- (i) (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof;
- (ii) a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof:



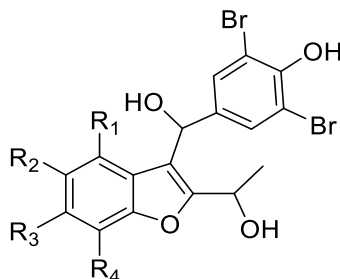
Formula (I);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium; and

R₅ is -CH₂CH₂(OH) or -CH(OH)CH₂(OH); or

- (iii) a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof:

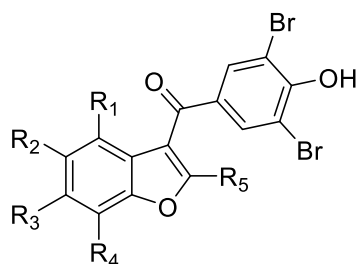


Formula (II);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium.

- 2. The compound of claim 1, that is (3,5-dibromo-4-hydroxyphenyl)(6-hydroxy-2-(1-hydroxyethyl)benzofuran-3-yl-4,5,7-*d*₃)methanone, or a pharmaceutically acceptable salt or solvate thereof.
- 3. The compound of claim 1, that is a compound of Formula (I), or a pharmaceutically acceptable salt or solvate thereof:



Formula (I);

wherein:

R₁, R₂, R₃, and R₄ are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R₁, R₂, R₃, and R₄ is deuterium; and

R₅ is -CH₂CH₂(OH) or -CH(OH)CH₂(OH).

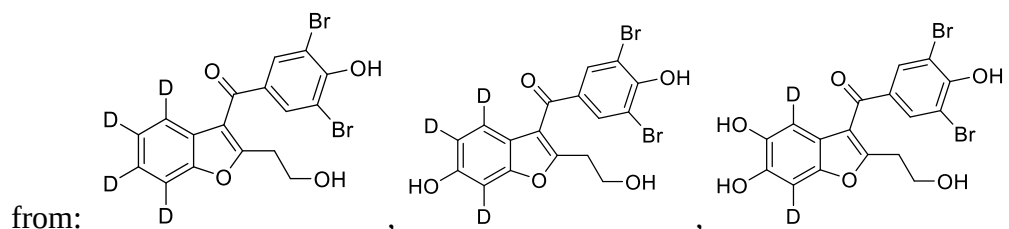
4. The compound of claim 3, or a pharmaceutically acceptable salt or solvate thereof, wherein:
at least two of R₁, R₂, R₃, and R₄ is deuterium.
5. The compound of claim 3, or a pharmaceutically acceptable salt or solvate thereof, wherein:
at least three of R₁, R₂, R₃, and R₄ is deuterium.
6. The compound of claim 3, or a pharmaceutically acceptable salt or solvate thereof, wherein:
R₁, R₂, R₃, and R₄ are deuterium.
7. The compound of any one of claims 3-6, or a pharmaceutically acceptable salt or solvate thereof, wherein:

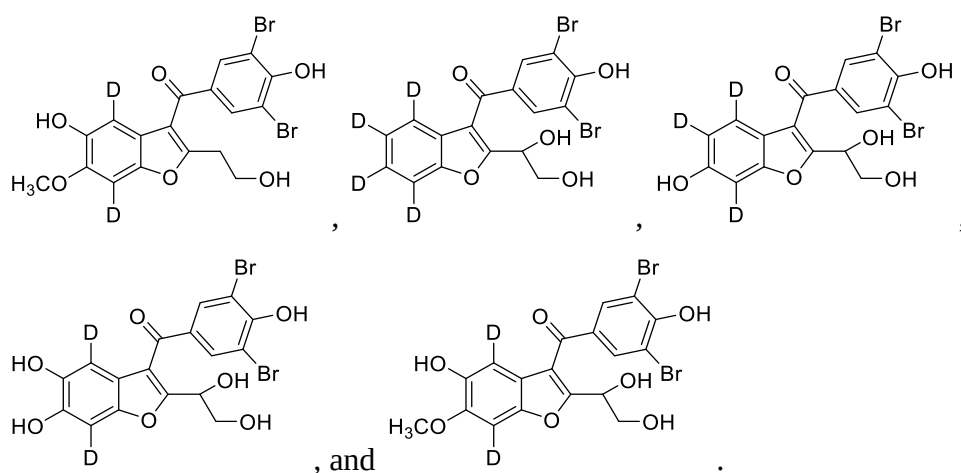
R₅ is -CH₂CH₂(OH).

8. The compound of any one of claims 3-6, or a pharmaceutically acceptable salt or solvate thereof, wherein:

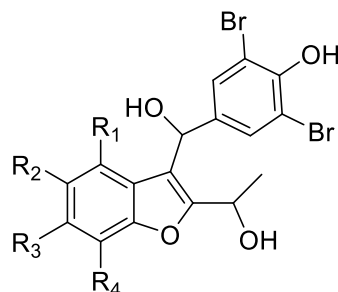
R₅ is -CH(OH)CH₂(OH).

9. The compound of claim 3, or a pharmaceutically acceptable salt or solvate thereof, selected





10. The compound of claim 1, that is a compound of Formula (II), or a pharmaceutically acceptable salt or solvate thereof:

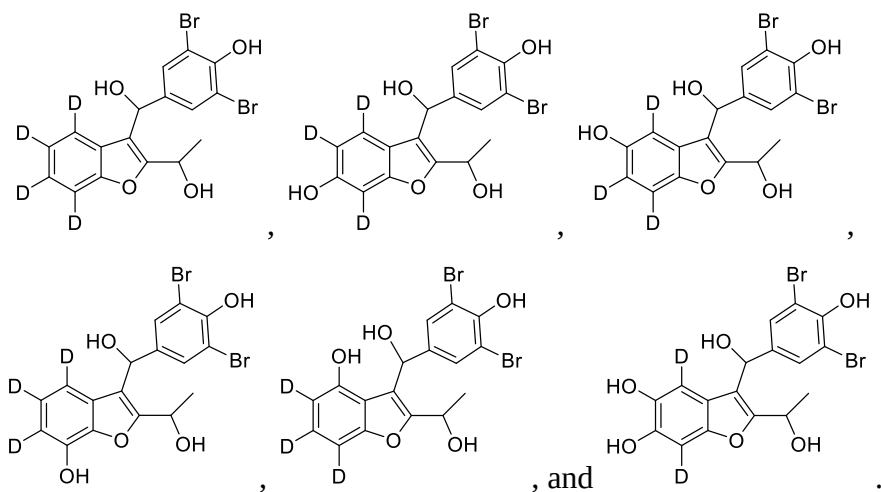


Formula (II);

wherein:

R_1 , R_2 , R_3 , and R_4 are each independently selected from a group consisting of hydrogen, deuterium, hydroxy, and methoxy; wherein at least one of R_1 , R_2 , R_3 , and R_4 is deuterium.

11. The compound of claim 10, wherein:
at least one of R_1 , R_2 , R_3 , and R_4 is hydroxy.
12. The compound of claim 10, or a pharmaceutically acceptable salt or solvate thereof, selected from:



13. Use of a compound of any one of claims 1-12, or a pharmaceutically acceptable salt or solvate thereof, in the manufacture of a medicament for treating or preventing hyperuricemia or gout in an individual in need thereof.
14. A pharmaceutical composition comprising a compound of any one of claims 1-12, or a pharmaceutically acceptable salt or solvate thereof, and at least one inactive ingredient selected from pharmaceutically acceptable carriers, diluents, and excipients.
15. A compound of any one of claims 1-12, or a pharmaceutically acceptable salt or solvate thereof, for use in therapy.