

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: St. Josephs University

Confirmation No.: 7344

Serial No.: 18/560,113

Group No.:

Filing or 371(c) Date: November 10, 2023

Examiner:

Entitled: SELECTIVE, PARTIAL, AND ARRESTIN-BIASED 5-HT2A AGONISTS WITH UTILITY
IN VARIOUS DISORDERS

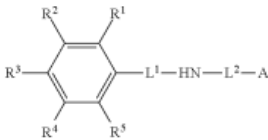
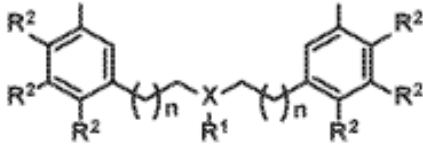
THIRD-PARTY PRE-ISSUANCE SUBMISSION

Examiner:

The following documents, which are also identified in the Form PTO/SB/429 filed herewith, are submitted for your consideration as being of potential relevance to the examination of the present application.

1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

Attached hereto is a claim chart providing a concise description of the relevance of each reference in the document list to the elements of the presently pending claims.

U.S.S.N. 18/560,113 Pending Claims	References
<p>1. A compound of formula (I) or a pharmaceutically acceptable salt thereof,</p>  <p>Wherein: R1, R2, R3, R4 and R5 are independently selected from the group consisting of hydrogen, deuterium, OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, NO2, N(Rm)2, C(O)ORm, C(O)N(Rm)2, C(O)C1-6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, dihydroxyC1-10alkyl, C3-6cycloalkyl, C(=NC1-6alkyl)C1-6alkyl, OC(O)N(Rm)2, SH, C(O)SRm, OC1-6alkyleneOC1-6alkyl, OC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneOC1-6alkyl, SC1-6alkyleneSC1-6alkyl, OC1-6alkyleneSC1-6alkyl, SC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl; wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>

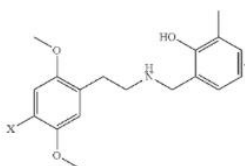
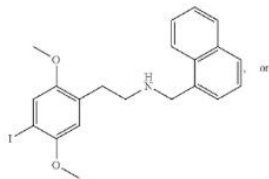
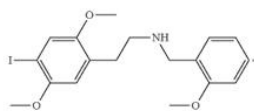
<p> CN, OC1-6alkylene- N(Rm)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1- 6alkylS(O) (sulfoxide), nitroso, C1- 6alkylOSO2, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, C1-6alkylene-N(Rm)2, C1-6alkylene- N(Rm)(CORm); provided that at least one of R1 and R2 contains an oxygen bonded to the phenyl ring; A is 4, 5, 6 or 7 membered ring optionally substituted with one or more substituents selected from the group consisting of OC1- 6alkyl, SC1-6alkyl, CN, OH, halogen, NO2, N(Rm)2, C(O)ORm, C(O)N(Rm)2, C(O)C1- 6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1- 6alkyl, dihydroxyC1- 10alkyl, C(=NC1- 6alkyl)C1-6alkyl, OC(O)N(Rm)2, SH, C(O)SRm, OC1- 6alkyleneOC1-6alkyl, OC1-6alkyleneO- haloC1-6alkyl, SC1- 6alkyleneOC1-6alkyl, SC1-6alkyleneSC1- 6alkyl, OC1- 6alkyleneSC1-6alkyl, </p>	
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<p>SC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-CN, OC1-6alkylene-N(Rm)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1-6alkylS(O) (sulfoxide), nitroso, C1-6alkylOSO2, C3-6cycloalkyl, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, 5-12 membered bicycloalkyl, and 5-12 membered heterobicycloalkyl, wherein the C3-6cycloalkyl, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, 5-12 membered bicycloalkyl, 5-12 membered heterobicycloalkyl, O—C3-6cycloalkyl, O-heterocycloalkyl3-10-membered, O-aryl6-10-membered, O-heteroaryl5-10-membered, O-bicycloalkyl5-12-membered, O-heterobicycloalkyl5-12-membered, OC1-2alkylene-C3-6cycloalkyl, OC1-2alkylene-</p>	
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heterocycloalkyl3-10-membered, OC1-2alkylene-aryl6-10-membered, OC1-2alkylene-heteroaryl5-10-membered, OC1-2alkylene-bicycloalkyl5-12-membered, OC1-2alkylene-heterobicycloalkyl5-12-membered, C1-2alkylene-C3-6cycloalkyl, C1-2alkylene-heterocycloalkyl3-10-membered, C1-2alkylene-aryl6-10-membered, C1-2alkylene-heteroaryl5-10-membered, C1-2alkylene-bicycloalkyl5-12-membered, C1-2alkylene-heterobicycloalkyl5-12-membered, wherein each of these rings is optionally substituted with one or more substituents selected from the group consisting of OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, NO₂, N(R_m)₂, C(O)OR_m, C(O)N(R_m)₂, C(O)C1-6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, C(=NC1-6alkyl)C1-6alkyl, OC(O)N(R_m)₂, SH, C(O)SR_m, OC1-6alkyleneOC1-6alkyl, OC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneOC1-6alkyl,

SC1-6alkyleneSC1-6alkyl, OC1-6alkyleneSC1-6alkyl, SC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-CN, OC1-6alkylene-N(Rm)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1-6alkylS(O) (sulfoxide), nitroso, and C1-6alkylOSO2; alternatively, two adjacent substituents of A link up and together with A form a bicyclic or tricyclic ring; Rm each is independently hydrogen or C1-6alkyl or halo-C1-6alkyl; L1 is C1-3alkylene, optionally R1 and L1 link up to form a ring; and L2 is a bond or C1-3alkylene optionally substituted with C1-4alkyl, C3-6 cycloalkyl, haloC1-4alkyl, deuterium or F,

provided that the compound is not

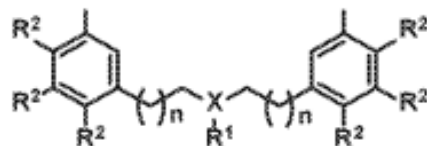


wherein X is CN, Cl, Br or I.

2. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein R1 is OC1-3alkyl.

1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

From **Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):**



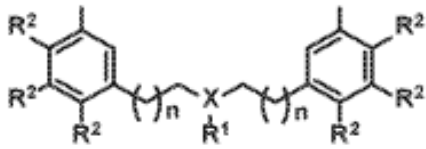
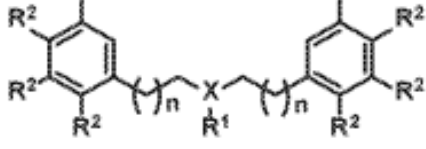
wherein **R1** = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; **wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl);**

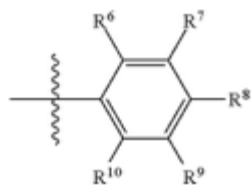
wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and

wherein each n independently = 0-3,

3. The compound of formula (I) or the pharmaceutically acceptable salt thereof

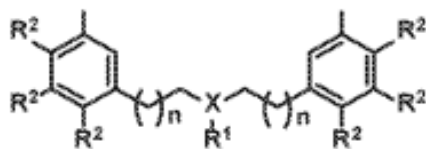
1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

<p>of claim 1, wherein R2 is OC1-3alkyl.</p>	<p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl: wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi , CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl; wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>
<p>4. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein R4 is OC1-3alkyl.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl: wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi , CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl; wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>
<p>5. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein R6 is OC1-3alkyl.</p>	<p><i>From the application of interest 18/560,113 paragraph [0088]:</i></p>



1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

From **Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):**

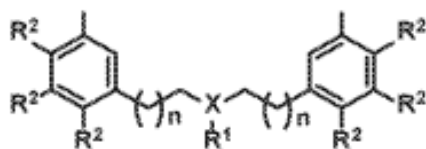


wherein **R1 = H**, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl: **wherein each R2 independently = OC1-3 saturated**, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQi, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl);
 wherein each X independently = CH₂, NH, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and
wherein each n independently = 0-3,

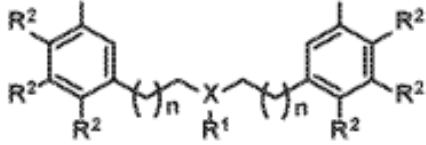
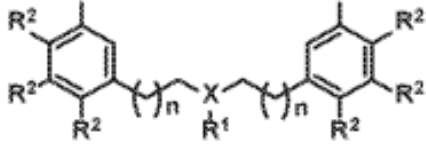
6. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein
 (a) R1 and R4 are each independently OC1-3alkyl;
 (b) R1 and R5 are each independently OC1-3alkyl; or
 (c) R2 and R5 are each independently OC1-3alkyl.

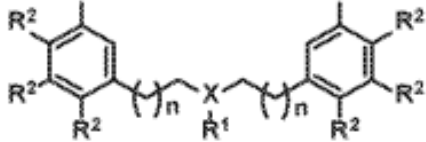
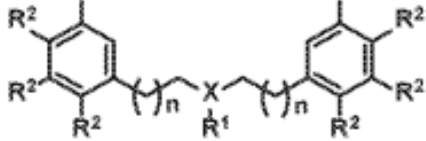
1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

From **Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):**



wherein **R1 = H**, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl: **wherein each R2 independently = OC1-3 saturated**, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQi, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl);

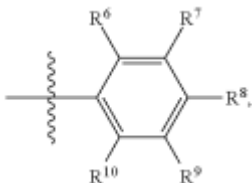
	<p>wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and wherein each n independently = 0-3,</p>
<p>7. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein R₃ is selected from the group consisting of OC1-6alkyl, SC1-6alkyl, CN, halogen, NO₂, N(R_m)₂, haloC1-6alkyl, and C1-6alkyl, and R₄ is selected from the group consisting of hydrogen, OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, NO₂, N(R_m)₂, haloC1-6alkyl, and C1-6alkyl.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R₁ = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl: wherein each R₂ independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQi, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and wherein each n independently = 0-3,</p>
<p>8. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein R₁ and R₄ are each independently OC1-3alkyl; R₃ is NO₂, haloC1-6alkyl, or C1-6alkyl.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R₁ = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl: wherein each R₂ independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQi, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and wherein each n independently = 0-3,</p>

<p>9. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein L1 is ethylene.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl: wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl;</p> <p>wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>
<p>10. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein L2 is methylene.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl: wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl;</p> <p>wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>
<p>11. The compound of formula (I) or the pharmaceutically acceptable salt thereof</p>	

<p>of claim 1, wherein two adjacent substituents of A link up and together with A form a bicyclic ring or tricyclic ring.</p>	
<p>12. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein two adjacent substituents of A link up and together with A form a bicyclic ring selected from the group consisting of indanyl, 1,2,3,4-tetrahydronaphthalenyl, benzimidazolyl, benzofuranyl, benzoselenophene, benzothiofuranyl, benzothiophenyl, benzoxazolyl, benzthiazolyl, benztriazolyl, benztetrazolyl, benzisoxazolyl, benzisothiazolyl, benzimidazoliny, chromanyl, chromenyl, cinnolinyl, indolenyl, indolinyl, indoliziny, indolyl, 3H-indolyl, indazolyl, isobenzofuranyl, isoindazolyl, isoindolinyl, isoindolyl, isoquinolinyl, methylenedioxyphenyl, naphthyridinyl, naphthalenyl, octahydro isoquinolinyl, quinazoliny, quinolinyl, 4H-quinoliziny, quinoxaliny, tetrahydroisoquinolinyl, and</p>	

tetrahydroquinolinyl, wherein the bicyclic ring is optionally substituted with one or more substituents selected from the group consisting of OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, NO₂, N(R_m)₂, C(O)OR_m, C(O)N(R_m)₂, C(O)C1-6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, and dihydroxyC1-10alkyl.

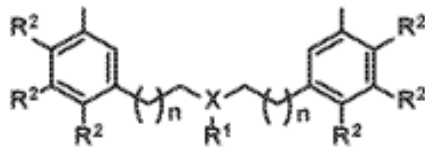
13. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1, wherein A is represented as



Wherein R₆ and R₇ are independently selected from the group consisting of H, OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, N(R_m)₂, C(O)OR_m, C(O)N(R_m)₂, C(O)C1-6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, C(=NC1-6alkyl)C1-6alkyl, OC(O)N(R_m)₂, SH, C(O)SR_m, OC1-6alkyleneOC1-6alkyl, OC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneOC1-6alkyl, SC1-6alkyleneSC1-

1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)

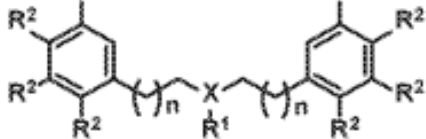
From **Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):**

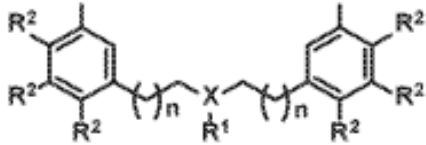


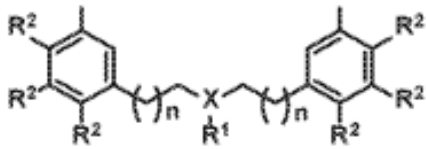
wherein **R₁** = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl; **wherein each R₂** independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQ_i, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and **wherein each n** independently = 0-3,

<p>6alkyl, OC1-6alkyleneSC1-6alkyl, SC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-CN, OC1-6alkylene-N(Rm)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1-6alkylS(O) (sulfoxide), nitroso, C1-6alkylOSO2, C3-6cycloalkyl, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, 5-12 membered bicycloalkyl, 5-12 membered heterobicycloalkyl, O—C3-6cycloalkyl, O-heterocycloalkyl3-10-membered, O-aryl6-10-membered, O-heteroaryl5-10-membered, O-bicycloalkyl5-12-membered, O-heterobicycloalkyl5-12-membered, OC1-2alkylene-C3-6cycloalkyl, OC1-2alkylene-heterocycloalkyl3-10-membered, OC1-2alkylene-aryl6-10-membered, OC1-2alkylene-heteroaryl5-10-membered, OC1-2alkylene-</p>	
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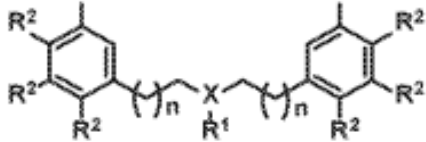
bicycloalkyl5-12-membered, OC1-2alkylene-heterobicycloalkyl5-12-membered, C1-2alkylene-C3-6cycloalkyl, C1-2alkylene-heterocycloalkyl3-10-membered, C1-2alkylene-aryl6-10-membered, C1-2alkylene-heteroaryl5-10-membered, C1-2alkylene-bicycloalkyl5-12-membered, and C1-2alkylene-heterobicycloalkyl5-12-membered, wherein each of the ring is optionally substituted; provided that at least one of R6 and R7 is not H; R8, R9 and R10 are independently selected from the group consisting of H, OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, N(Rm)₂, C(O)ORm, C(O)N(Rm)₂, C(O)C1-6alkyl, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, C(=NC1-6alkyl)C1-6alkyl, OC(O)N(Rm)₂, SH, C(O)SRm, OC1-6alkyleneOC1-6alkyl, OC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneOC1-6alkyl, SC1-6alkyleneSC1-6alkyl, OC1-6alkyleneSC1-6alkyl, SC1-6alkyleneO-haloC1-6alkyl, SC1-

<p>6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-CN, OC1-6alkylene-N(Rm)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1-6alkylS(O) (sulfoxide), nitroso, and C1-6alkylOSO2.</p>	
<p>14. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 13, wherein R6 is selected from the group consisting of C3-6cycloalkyl, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, 5-12 membered bicycloalkyl, 5-12 membered heterobicycloalkyl, O—C3-6cycloalkyl, O-heterocycloalkyl3-10-membered, O-aryl6-10-membered, O-heteroaryl5-10-membered, O-bicycloalkyl5-12-membered, O-heterobicycloalkyl5-12-membered, OC1-2alkylene-C3-6cycloalkyl, OC1-2alkylene-heterocycloalkyl3-10-membered, OC1-2alkylene-aryl6-10-membered, OC1-</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>

<p>2alkylene-heteroaryl5-10-membered, OC1-2alkylene-bicycloalkyl5-12-membered, OC1-2alkylene-heterobicycloalkyl5-12-membered, C1-2alkylene-C3-6cycloalkyl, C1-2alkylene-heterocycloalkyl3-10-membered, C1-2alkylene-aryl6-10-membered, C1-2alkylene-heteroaryl5-10-membered, C1-2alkylene-bicycloalkyl5-12-membered, C1-2alkylene-heterobicycloalkyl5-12-membered, wherein each of the rings is optionally substituted.</p>	
<p>15. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 13, wherein R₆ is an optionally substituted ring system selected from the group consisting of adamantanyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclopentenyl, cyclohexyl, cyclohexenyl, cycloheptyl, cyclooctyl, tetrahydrofuranyl, ferrocenyl, furanyl, furazanyl, imidazolyl, imidazolyl, norbornyl, norbornenyl, oxadiazolyl, 1,2,3-oxadiazolyl, 1,2,4-oxadiazolyl, 1,2,5-</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R₁ = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl; wherein each R₂ independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQ_i, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and wherein each n independently = 0-3,</p>

<p>oxadiazolyl, 1,3,4-oxadiazolyl, oxazolidinyl, oxazolyl, oxazolidinyl, phenyl, piperazinyl, pyrimidinyl, piperonyl, pyranyl, pyrazinyl, pyrazolidinyl, pyrazolinyl, pyrazolyl, pyridazinyl, pyridinyl, pyridyl, pyrimidinyl, pyrrolinyl, 2H-pyrrolyl, pyrrolyl, tetrazolyl, 6H-1,2,5-thiadiazinyl, 1,2,3-thiadiazolyl, 1,2,4-thiadiazolyl, 1,2,5-thiadiazolyl, 1,3,4-thiadiazolyl, thianthrenyl, thiazolyl, thienothiazolyl, thienooxazolyl, thienoimidazolyl, thiophenyl, triazinyl, 1,2,3-triazolyl, 1,2,4-triazolyl, 1,2,5-triazolyl, 1,3,4-triazolyl.</p>	
<p>16. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 13, wherein R₆ is selected from the group consisting of H, OC₁₋₆alkyl, SC₁₋₆alkyl, CN, OH, halogen, N(R_m)₂, C(O)OR_m, C(O)N(R_m)₂, C(O)C₁₋₆alkyl, haloC₁₋₆alkyl, haloC₁₋₆alkyleneO, C₁₋₆alkyl, and hydroxyC₁₋₆alkyl; and R₇ is selected from the group consisting of H, OC₁₋₆alkyl, SC₁₋₆alkyl, CN, OH, halogen, N(R_m)₂, C(O)C₁₋₆alkyl,</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R₁ = H, OC₁₋₃ saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C₁₋₃ saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C₁₋₃ saturated or unsaturated alkyl; wherein each R₂ independently = OC₁₋₃ saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C₁₋₃ saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQ_i, CO₂C₁₋₃ saturated or unsaturated alkyl, NHC₁₋₃ saturated, unsaturated alkyl, or cycloalkyl, or N(C_{i-3} saturated, unsaturated alkyl, or cycloalkyl);</p> <p>wherein each X independently = CH₂, NH, NHC₁₋₃ saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and wherein each n independently = 0-3,</p>

haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, hydroxyC1-6alkyl, C3-6cycloalkyl, C3-6cycloalkyl, 3-10 membered heterocycloalkyl, 6-10 membered aryl, 5-10 membered heteroaryl, 5-12 membered bicycloalkyl, 5-12 membered heterobicycloalkyl, O—C3-6cycloalkyl, O-heterocycloalkyl3-10-membered, O-aryl6-10-membered, O-heteroaryl5-10-membered, O-bicycloalkyl5-12-membered, O-heterobicycloalkyl5-12-membered, OC1-2alkylene-C3-6cycloalkyl, OC1-2alkylene-heterocycloalkyl3-10-membered, OC1-2alkylene-aryl6-10-membered, OC1-2alkylene-heteroaryl5-10-membered, OC1-2alkylene-bicycloalkyl5-12-membered, OC1-2alkylene-heterobicycloalkyl5-12-membered, C1-2alkylene-C3-6cycloalkyl, C1-2alkylene-heterocycloalkyl3-10-membered, C1-2alkylene-aryl6-10-membered, C1-2alkylene-heteroaryl5-10-membered, C1-2alkylene-bicycloalkyl5-12-

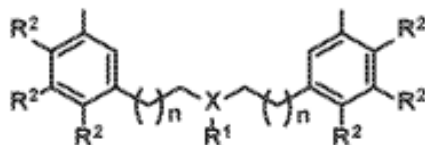
<p>membered, C1-2alkylene-heterobicycloalkyl5-12-membered, wherein each of the ring is optionally substituted.</p>	
<p>17. The compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 13, wherein R8 is selected from the group consisting of OC1-6alkyl, SC1-6alkyl, CN, OH, halogen, N(Rm)2, haloC1-6alkyl, haloC1-6alkyleneO, C1-6alkyl, C(=NC1-6alkyl)C1-6alkyl, OC(O)N(Rm)2, SH, C(O)SRm, OC1-6alkyleneOC1-6alkyl, OC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneOC1-6alkyl, SC1-6alkyleneSC1-6alkyl, OC1-6alkyleneSC1-6alkyl, SC1-6alkyleneO-haloC1-6alkyl, SC1-6alkyleneS-haloC1-6alkyl, OC1-6alkyleneS-haloC1-6alkyl, C1-6alkylene-CN, OC1-6alkylene-CN, SC1-6alkylene-CN, OC1-6alkylene-N(R11)2, C2-6alkynyl, C2-6alkenyl, SO2N(Rm)2, NRmSO2C1-6alkyl, C1-6alkylSO2 (sulfone), S(O)OH, C1-6alkylS(O) (sulfoxide), nitroso, and C1-6alkylOSO2.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl: wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl; wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>
<p>18. The compound of formula (I) or the pharmaceutically</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p>

acceptable salt thereof of claim 1, which is represented by

Wherein

Compound R6 R7 R8
R10 R3 25N-NBOH
OH H H H NO2 (3)
25N-NBOMeOCH3 H
H H NO2 (4) 25N-
NBOEt OCH2CH3 H
H H NO2 (5) 25N-
NBMeCH3 H H H
NO2 (6) 25N-NBF F H
H H NO2 (7) 25N-
NBCl Cl H H H NO2
(8) 25N-NBBr Br H H
H NO2 (9) 25N-NBI I
H H H NO2 (10) 25N-
NBOCF2HOCF2H H H
H NO2 (11) 25N-
NBOCF3 OCF3 H H H
NO2 (12) 25N-
NBMDf2OCF2O H H
NO2 (13) 25N-NBCF3
CF3 H H H NO2 (14)
25N-NBNO2 NO2 HH
H NO2 (15) 25N-N-1-
Nap (CH)4 H H NO2
(16) 25N-NBPh Ph H H
H NO2 (17) 25N-NB-2-
OH-3-Me OH CH3 H
H NO2 (18) 25N-NB-
2-MeO-3-F OCH3F H
H NO2 (19) 25N-NB-
2,5-DiMeO OCH3 H H
OCH3 NO2 (20) 25N-
NB-3-OH H OH H H
NO2 (21) 25N-NB-3-
Me H CH3 H H NO2
(22) 25N-NB-4-MeH H
CH3 H NO2 (23) 25N-
NB-3-F H F H H NO2
(24) 25N-NB-4-F H H
F HNO2 (25) 25D-
NBOMe OCH3 H H H
CH3 (26) 25D-N1-Nap
(CH)4 H H CH3 (27)
25D-NBPh Ph H H H
CH3 (28)

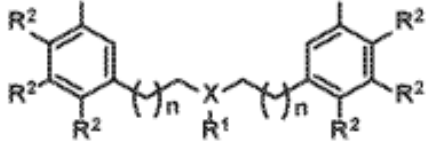
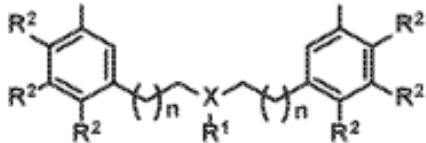
From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):

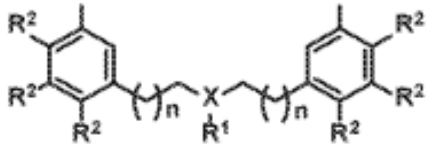


wherein **R1** = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO₂H, or CO₂C1-3 saturated or unsaturated alkyl: **wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF₃, NH₂, CN, CQi, CO₂C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl;**

wherein each X independently = CH₂, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO₂; and

wherein each n independently = 0-3,

<p>19. A pharmaceutical composition comprising the compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1 and a pharmaceutically acceptable carrier.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p> <p>From Description: The pharmaceutical compositions having one or more of the compounds described herein comprise a therapeutically effective amount of compounds, for instance, those identified by the screening methods, and a pharmaceutically acceptable carrier.</p>
<p>20. A method of treating a disease or condition, comprising administering to a subject in need thereof the compound of formula (I) or the pharmaceutically acceptable salt thereof of claim 1.</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl); wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p>

	<p>From Description: The expression "effective amount", when used to describe therapy to an individual suffering from a disorder, refers to the amount of a compound or composition that is effective to prevent or inhibit or otherwise treat one or more symptoms of a disease or disorder.</p>
<p>21. The method of claim 20, wherein the disease or condition is a psychiatric or neurological disease or condition or sign or symptom selected from the group consisting of attention deficient disorder, attention deficit hyperactivity disorder (ADHD), adult attention-deficit/hyperactivity disorder, learning disorders, neurocognitive disorders, Tic disorders, autism spectrum disorder, Tourette's disorder, schizophrenia, negative symptoms of schizophrenia, cognitive symptoms of schizophrenia, substance/medication-induced psychotic disorder, psychotic disorder due to another medical condition, brief psychotic disorder, schizophreniform disorder, schizoaffective disorder, disruptive mood dysregulation disorder, depression, post-partum depression, persistent depressive disorder, major depressive episode, major depressive</p>	<p>1. Int'l Pat. App. Pub. No. WO/2019/089940 "Methods of treating epilepsy and related neurological conditions" (Published May 9, 2019)</p> <p>From Claim 41: The method of any one of claims 1 to 40 wherein the composition comprises a compound of formula (XXXVII):</p>  <p>wherein R1 = H, OC 1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, CO2H, or CO2C1-3 saturated or unsaturated alkyl; wherein each R2 independently = OC1-3 saturated, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, C1-3 saturated alkyl, unsaturated alkyl, cycloalkyl, cycloheteroalkyl, Cl, Br, F, I, OH, OAc, Ac, CF3, NH2, CN, CQi, CO2C1-3 saturated or unsaturated alkyl, NHC1-3 saturated, unsaturated alkyl, or cycloalkyl, or N(Ci-3 saturated, unsaturated alkyl, or cycloalkyl; wherein each X independently = CH2, NH, NHC1-3saturated, unsaturated alkyl, or cycloalkyl, O, S, SO, or SO2; and wherein each n independently = 0-3,</p> <p>From Description: In certain embodiments, compositions and methods are provided for altering function the activity of GABA through the GABA-A receptor in a mammal.</p> <p>From Description: In one embodiment, compounds that modulate GABA activity may be useful to prevent, inhibit, or treat disorders including, but not limited to, seizure disorders including epilepsy and associated co-morbidities, e.g., epilepsy, childhood absence 5 (ECA5), epileptic encephalopathy (EE), early infantile EE 43 (EIEE43), autism spectrum disorder, Lenox-Gastaut Syndrome (LGS), global developmental delay, decreased fine and gross motor control, attention deficit hyperactivity disorder (ADHD), Rett syndrome, Angeiman syndrome, Prader-Willi syndrome. Compounds that modulate GABA activity may also be useful to prevent, inhibit or treated other disorders of the central nervous system (CNS) including, but not limited to, stress, anxiety, mood or psychiatric disorders (e.g. premenstrual dysphoric disorder, post-partum depression, puberty associated depression and schizophrenia), insomnia, migraines, muscle spasms and rgidity (e.g. stiff person</p>

<p>disorder, treatment-resistant depression, post-traumatic stress disorder, reactive attachment disorder, disinhibited social engagement disorder, personality disorders, psychopathy, cyclothymic disorder, manic episode, hypomanic episode, bipolar disorder, delusional disorder, obsessive compulsive disorder, hoarding disorder, premenstrual dysphoric disorder, somatic symptom and related disorders, intellectual disabilities, communication disorders, motor disorders, catalepsy, catatonia, agitation, hypertension, sleep disorders, sexual dysfunctions anxiety disorders, adjustment disorders, body dysmorphic disorder, Trichotillomania, excoriation disorder, substance/medication-induced obsessive-compulsive and related disorder, dementias, neurodegenerative diseases, seasonal affective disorder, pseudobulbar affect, cluster headache, headaches, migraines, Tension-type headaches, tinnitus, hallucinations, delusions, epilepsies, cyclic vomiting syndrome, cannabinoid</p>	<p>syndrome), sleep disorders, chronic alcohol intoxication/withdrawal, multiple sclerosis and neuropathic pain</p>
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<p>hyperemesis, nausea, restless leg syndrome, weight loss or binge eating, anorexia nervosa, bulimia nervosa, alcoholism, nicotine dependence, substance use disorders, non-substance related disorders, oppositional defiant disorder, intermittent explosive disorder, conduct disorder, pyromania, kleptomania, paraphilic disorders, medication induced movement disorders, and adverse effects of other medications.</p>	
<p>22. The method of claim 20, wherein the disease or condition is selected from the group consisting of autoimmune diseases, acute pain, chronic pain, neuropathic pain, cancer, cough, infections, tinnitus, hearing loss, loss of taste, loss of smell, endocrine diseases and disorders, diabetes, gastrointestinal tract related diseases, urinary tract diseases, blood diseases, cardiovascular disease, inflammatory diseases, arthritis, paralysis, or spinal cord injury.</p>	
<p>26. The method of claim 20, wherein the subject has taken a hallucinogen.</p>	



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Title of Invention

Application Information

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CONFIRMATION #		FILED BY	Jeremy Rolquin
PATENT CENTER #	68710027	FILING DATE	11/10/2023
CUSTOMER #	-	FIRST NAMED INVENTOR	
INTL. APPLICATION #	-	INTL. FILING DATE	-
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

Documents

TOTAL DOCUMENTS: 5

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Concise-description-generated.pdf	1	Concise Description of Relevance	23 KB
Third-party-notification-request.pdf	1	Request for Notification of Non-compliant Third-Party Submission	13 KB
third-party-preissuance-submission.pdf	2	Third-Party Submission Under 37 CFR 1.290	42 KB
3PS.pdf	26	-	353 KB
3PS-3P.RELEVANCE.pdf	(1-26) 26	Concise Description of Relevance	230 KB
WO2019089940.pdf	102	-	7661 KB
WO2019089940-FOR.pdf	(1-102) 102	Foreign Reference	7657 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
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Third-party-notification-request.pdf	D2C81E17BF3D77934A20A5FDCBF19CC83676EE51731EFDD906B2EAFEFFAE7251C35D6A028D34950EFA2551DDDF64C542C428170791FED3253CFC59679D3240B1
third-party-preissuance-submission.pdf	04C281D46CA6B9A2ED5831184E1F7B34C23F7E9232A1B330F28A16C228637EAA7D06CC85BE568E52350827A6BFC281FA07D16A9F8FE483BA4603C04005D98CDC
3PS.pdf	2A7601659B6A6651BF662E460E559DA959620C4C7D761967E46F1DCC4C2F0CAF06AD631EAF9E2FA737F8C6F19AFDA3EBFDC5F5DD678BC220327AA7A08283637
3PS-3P.RELEVANCE.pdf	40E8DE35060C434B78B829917DDE794B7C66F6F079C949040B8E2F59D96A8A1869B51E8647896BFFBBAA5F5ED1CE041ECBD862BFA60D2DF3BD92D4820D693602
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WO2019089940-FOR.pdf	F4FDAC447C2A84517EF3D62E097B3DCDCD16CB5A81E427CB35795A0F1B9C44082BCDAD26C64F26906FAE30C746383841353A099548D1F733B02E0FCB4B9B448B

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.