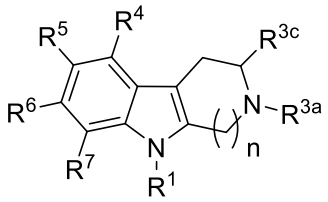
WHAT IS CLAIMED IS:

1. A compound having the following structure:



wherein:

R^1 is hydrogen or C_{1-6} alkyl;

R^{3a} is C_{1-6} alkyl, C_{3-8} cycloalkyl, or C_{4-14} alkyl-cycloalkyl;

R^{3c} is hydrogen or C_{1-6} alkyl;

R^4, R^5 and R^7 are each independently hydrogen, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, halogen, C_{1-6} haloalkyl, C_{1-6} alkylamine, C_{1-6} alkoxy, C_{1-6} haloalkoxy, $–OR^{8a}$, -NO_2, -CN, -$C(O)R^{8b}$, -$C(O)OR^{8b}$, -$OC(O)R^{8b}$, -$OC(O)OR^{8b}$, -$N(R^{8b}R^{8c})$, -$N(R^{8b})C(O)R^{8c}$, -$C(O)N(R^{8b}R^{8c})$, -$N(R^{8b})C(O)OR^{8c}$, -$OC(O)N(R^{8b}R^{8c})$, -$N(R^{8b})C(O)N(R^{8c}R^{8d})$, -$C(O)C(O)N(R^{8b}R^{8c})$, -$S(O_2)R^{8b}$, -$S(O)_2N(R^{8b}R^{8c})$, C_{3-8} cycloalkyl, C_{3-14} alkyl-cycloalkyl, C_{4-10} heterocycloalkyl, C_{4-16} alkyl-heterocycloalkyl, C_{7-18} alkyl-aryl, C_{5-10} heteroaryl, or C_{4-16} alkyl-heteroaryl,

R^6 is F, -OH, -OMe, -OiPr, -Me, -CF_3, -OCF_3, -NMe_2, -NHC(O)Me, or -N(Me)C(O)Me;

alternatively, R^4 and R^5, R^5 and R^6, or R^6 and R^7 are combined with the atoms to which they are each attached to form a C_{3-6} heterocycloalkyl;

R^{8a}, R^{8b}, R^{8c} and R^{8d} are each independently H, or C_{1-6} alkyl;

n is 2 or 3;

wherein when n is 2 and R^6 is F then at least one of R^4, R^5, and R^7 is not hydrogen; and

wherein when n is 2 and R^6 is F, Cl, methyl, or OMe, then R^{3a} is methyl,

or pharmaceutically acceptable salts and isotopically-labeled compounds thereof.

2. The compound of claim 1, or a pharmaceutically acceptable salt thereof, wherein R^1 is hydrogen or methyl.

3. The compound of claim 1 or 2, or a pharmaceutically acceptable salt thereof, wherein R^1 is hydrogen.

4. The compound of any one of claims 1 to 3, or a pharmaceutically acceptable salt thereof, wherein R^{3a} is methyl.

5. The compound of any one of claims 1 to 4, or a pharmaceutically acceptable salt thereof, wherein

R^5 and R^6 are combined with the atoms to which they are each attached to form a C_{3-6} heterocycloalkyl; and

R^{8a}, R^{8b} and R^{8c} are each independently H, or C_{1-6} alkyl.

6. The compound of any one of claims 1 to 3, or a pharmaceutically acceptable salt thereof, wherein:

R^4, R^5 and R^7 are each independently H, F, Cl, Br, -OH, -OMe, $-CF_3$ $-OCF_3$, -Me, $-NMe_2$, -NHC(O)Me, or -N(Me)C(O)Me,

alternatively, R^5 and R^6 are combined to form a 1,3-dioxole ring, or 1,4-dioxane ring.

7. The compound of any one of claims 1 to 6, or a pharmaceutically acceptable salt thereof, wherein:

R^4 is H, F, -Me, $-CF_3$, $-OCF_3$, or -OMe;

R^5 is H, F, Cl, Br, -Me, $-CF_3$, $-OCF_3$, -OH or -OMe;

R^6 is F, -OH, -OMe, -OiPr, -Me, $-CF_3$, $-OCF_3$, $-NMe_2$, -NHC(O)Me, or -N(Me)C(O)Me;

alternatively, R^5 and R^6 are combined to form a 1,3-dioxole ring or 1,4-dioxane ring; and

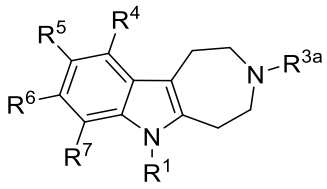
R^7 is H.

8. The compound of any one of claims 1 to 7, or a pharmaceutically acceptable salt thereof, wherein

R^6 is F, -OH, -OMe, -OiPr, -Me, $-CF_3$, $-OCF_3$, $-NMe_2$, -NHC(O)Me, or -N(Me)C(O)Me;

alternatively, R^5 and R^6 are combined to form a 1,3-dioxole ring or 1,4-dioxane ring.

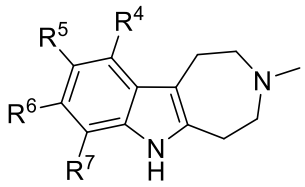
9. The compound of any one of claims 1 to 8, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:



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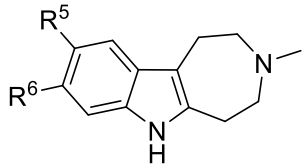
10. The compound of any one of claims 1 to 9, or a pharmaceutically acceptable salt thereof, wherein R^{3a} is methyl.

11. The compound of any one of claims 1 to 10, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:



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12. The compound of any one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:

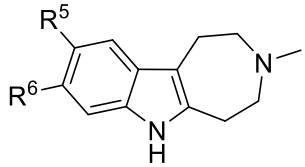


wherein:

R^5 is H, F, Cl, Br, I, -OH, -OMe, -OiPr, -Me, $-CF_3$,$-OCF_3$, $-NMe_2$, -NHC(O)Me, or -N(Me)C(O)Me,

alternatively, R^5 and R^6 are combined to form a 1,3-dioxole ring or 1,4-dioxane ring.

13. The compound of any one of claims 1 to 12, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:

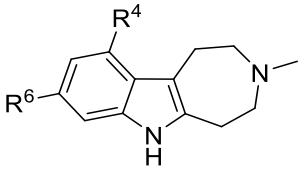


wherein:

R^5 is F, Cl, Br, I, -OH, -OMe, -OiPr, -Me, $-CF_3$,$-OCF_3$, $-NMe_2$, -NHC(O)Me, or -N(Me)C(O)Me;

alternatively, R^5 and R^6 are combined to form a 1,3-dioxole ring or 1,4-dioxane ring.

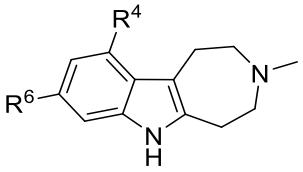
14. The compound of any one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:



wherein:

R^4 is F, Cl, Br, I, -OH, -OMe, -OiPr, -Me, -CF_3,-OCF_3, -NMe_2, -NHC(O)Me, or -N(Me)C(O)Me.

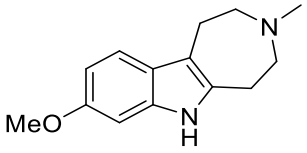
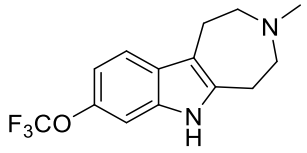
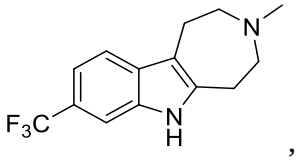
15. The compound of any one of claims 1 to 11 or 14, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:

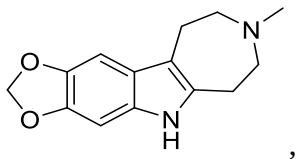
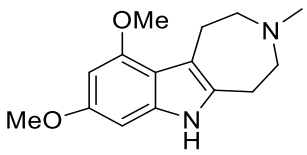
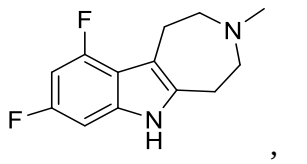


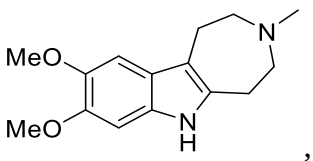
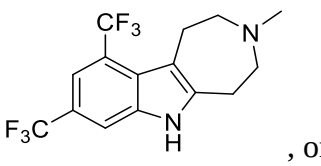
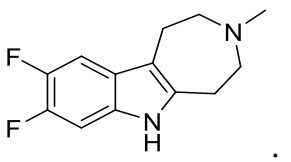
wherein:

R^4 is F, Cl, Br, I, -OH, -OMe, -OiPr, -Me, -CF_3, -OCF_3, -NMe_2, -NHC(O)Me, or -N(Me)C(O)Me.

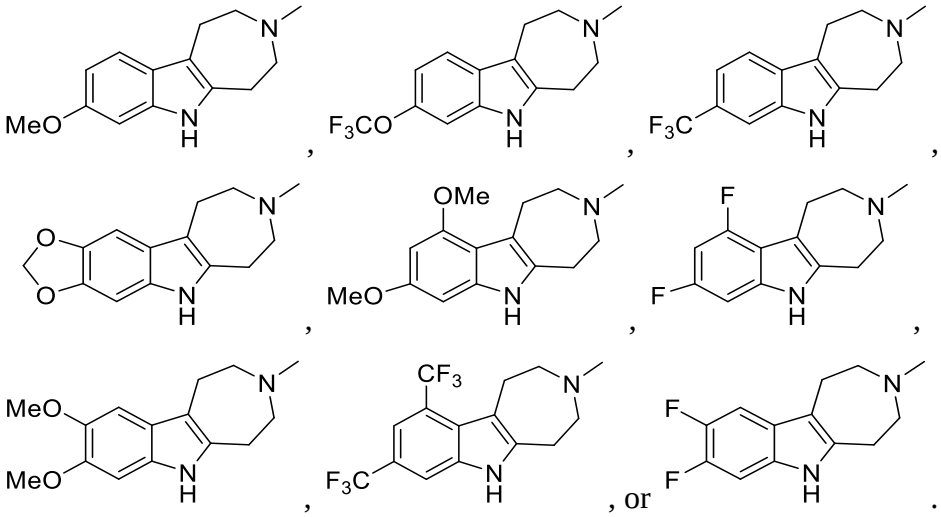
16. The compound of any one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, wherein the compound is

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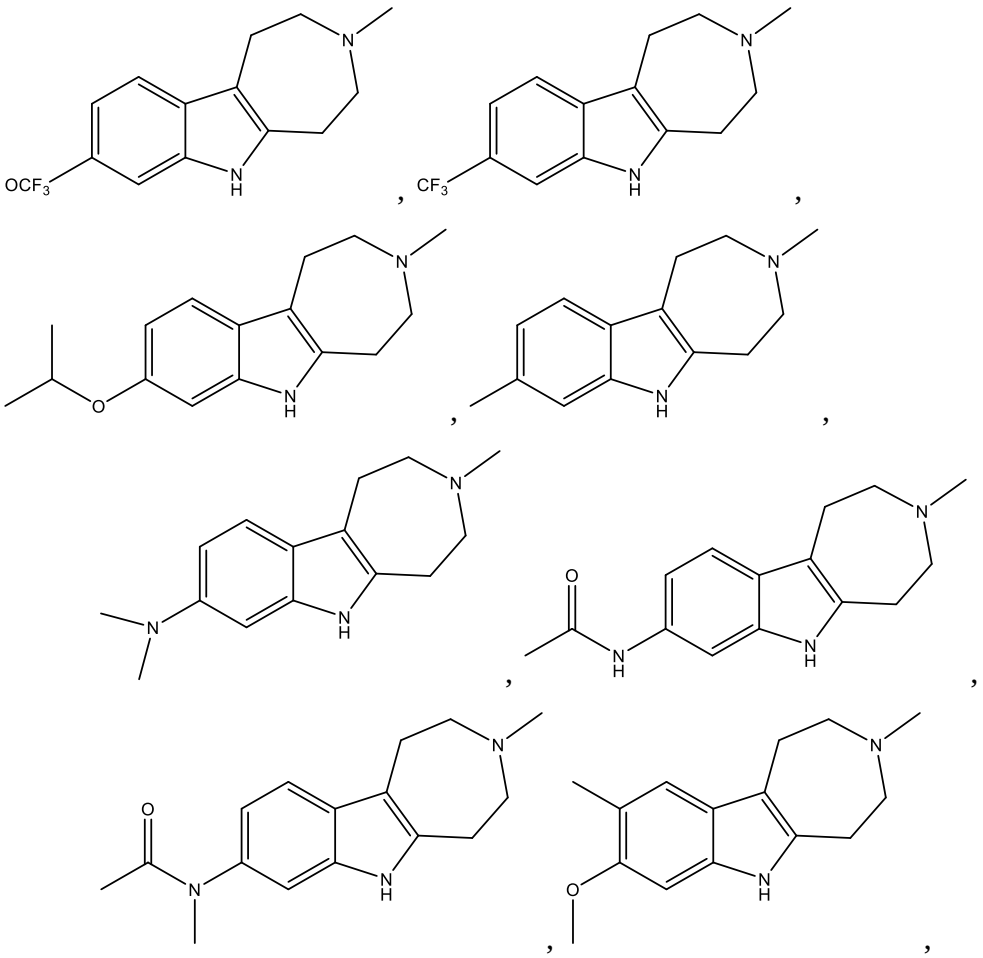
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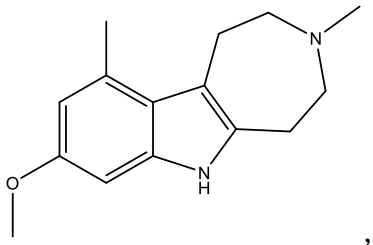
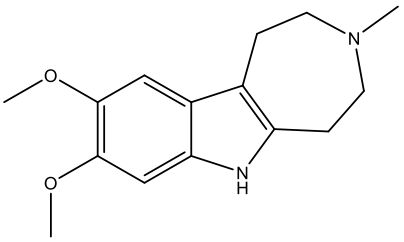
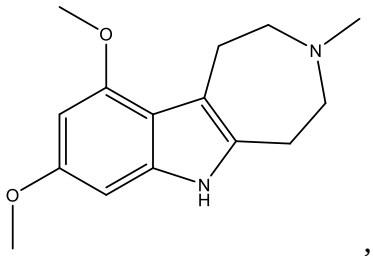
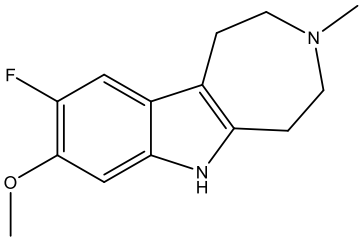
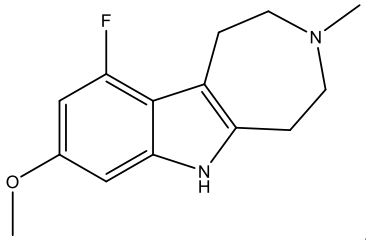
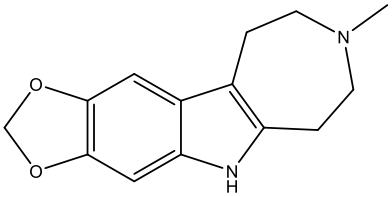
, , or .

17. The compound of any one of claims 1 to 11 or 16, or a pharmaceutically acceptable salt thereof, wherein the compound is

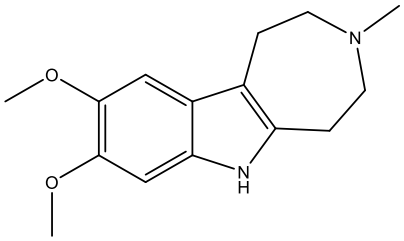
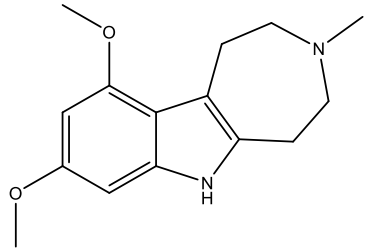
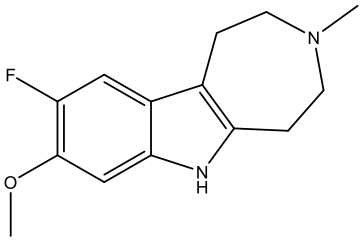
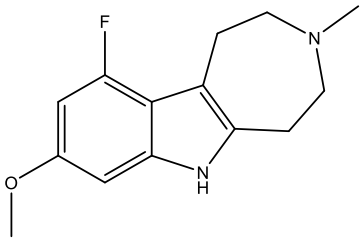
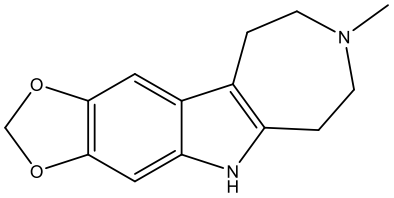


18. The compound of any one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, wherein the compound is

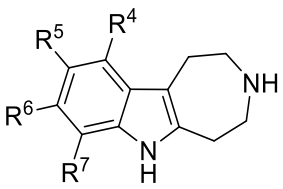



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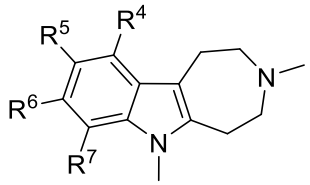
19. The compound of any one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, wherein the compound is


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20. The compound of any one of claims 1 to 9, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:

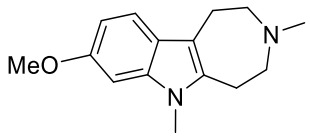

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21. The compound of any one of claims 1 to 8, or a pharmaceutically acceptable salt thereof, wherein the compound has the following structure:



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22. The compound of claim 21, or a pharmaceutically acceptable salt thereof, wherein the compound is



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23. A pharmaceutical composition comprising a compound of any one of claims 1 to 22, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

24. Use of a compound of any one of claims 1 to 22or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for increasing neuronal plasticity of a neuronal cell.

25. Use of a compound of any one of claims 1 to 22
or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating a brain disorder.

26. The use of claim 25, wherein the brain disorder is a neurodegenerative disorder, Alzheimer's, or Parkinson's disease.

27. The use of claim 25, wherein the brain disorder is a psychological disorder, depression, addiction, anxiety, or a post-traumatic stress disorder.

28. The use of claim 27, wherein the brain disorder is depression.

29. The use of claim 27, wherein the brain disorder is addiction.

30. The use of claim 25, wherein the brain disorder is treatment resistant depression, suicidal ideation, major depressive disorder, bipolar disorder, or substance use disorder.

31. The use of claim 25, wherein the brain disorder is schizophrenia.

32. The use of claim 25, wherein the brain disorder is alcohol use disorder.

33. The use of claim 25, wherein the brain disorder is stroke or traumatic brain injury.

34. The use of any one of claims 25 to 33, wherein
one or more additional therapeutic agent that is lithium, Olanzapine (Zyprexa), Quetiapine (Seroquel), Risperidone (Risperdal), Ariprazole (Abilify), Ziprasidone (Geodon), Clozapine (Clozaril), divalproex sodium (Depakote), lamotrigine (Lamictal), valproic acid (Depakene), carbamazepine (Equetro), topiramate (Topamax), levomilnacipran (Fetzima), duloxetine (Cymbalta, Yentreve), venlafaxine (Effexor), citalopram (Celexa), fluvoxamine (Luvox), escitalopram (Lexapro), fluoxetine (Prozac), paroxetine (Paxil), sertraline (Zoloft), clomipramine (Anafranil), amitriptyline (Elavil), desipramine (Norpramin), imipramine (Tofranil), nortriptyline (Pamelor), phenelzine (Nardil), tranylcypromine (Parnate), diazepam (Valium), alprazolam (Xanax), or clonazepam (Klonopin) is to be administered.

35. Use of a compound of any one of claims 1 to 22
or a pharmaceutically acceptable salt thereof, in an amount sufficient to increase neuronal plasticity of a neuronal cell, in the manufacture of a medicament for increasing at least one of translation, transcription or secretion of neurotrophic factors.

36. A compound of any one of claims 1 to 22,
or a pharmaceutically acceptable salt thereof, for use in therapy.