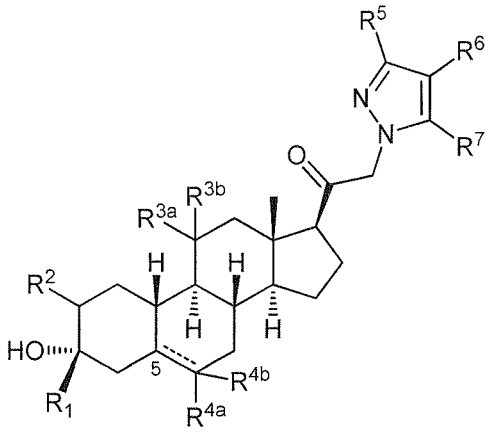
In one aspect, there is provided a compound of Formula (**I**):



(**I**)

or a pharmaceutically acceptable salt thereof;

wherein:

---- represents a single or double bond;

R^1 is C_{1-6} alkyl optionally substituted with alkoxy or one to two halo groups~~substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl~~;

R^2 is hydrogen, halogen, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocyclyl, or $-OR^{A2}$, wherein R^{A2} is hydrogen or substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl;

R^{3a} is hydrogen or $-OR^{A3}$, wherein R^{A3} is hydrogen or substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl, and R^{3b} is hydrogen; or R^{3a} and R^{3b} are joined to form an oxo (=O) group;

each instance of R^{4a} and R^{4b} is independently hydrogen, substituted or unsubstituted C_{1-6} alkyl, or halogen, provided if the ---- between C5 and C6 is a single bond, then the hydrogen at C5 and R^{4a} are each independently provided in the *alpha* or *beta* configuration, and if the ---- between C5 and C6 is a double bond, then the hydrogen at C5 and R^{4b} ~~is~~ are absent;

~~each instance of~~at least one of R^5, R^6, and R^7 is~~, independently, hydrogen,~~ halogen, $-NO_2$, -CN, $-OR^{GA}$, $-N(R^{GA})_2$, $-C(=O)R^{GA}$, $-C(=O)OR^{GA}$, ~~$-OC(=O)R^{GA}$, $-OC(=O)OR^{GA}$, $-C(=O)N(R^{GA})_2$, $-N(R^{GA})C(=O)R^{GA}$, $-OC(=O)N(R^{GA})_2$, $-N(R^{GA})C(=O)OR^{GA}$, $-N(R^{GA})C(=O)N(R^{GA})_2$,~~ $-SR^{GA}$,

-S(=O) R^{GA}, -$S(=O)_2R^{GA}$, -$S(=O)_2OR^{GA}$, -$OS(=O)_2R^{GA}$, -$S(=O)_2N(R^{GA})_2$, ~~-$N(R^{GA})S(=O)_2R^{GA}$,~~ or substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl~~substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocylyl, or substituted or unsubstituted 3- to 6- membered heterocylyl~~; and

each instance of R^{GA} is independently hydrogen, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocylyl, substituted or unsubstituted 3- to 6- membered heterocylyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, an oxygen protecting group when attached to oxygen, nitrogen protecting group when attached to nitrogen, or two R^{GA} groups are taken with the intervening atoms to form a substituted or unsubstituted heterocylyl or heteroaryl ring.

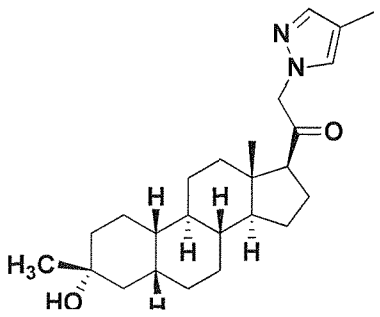
Steroids of Formula (**I**), sub-genera thereof, and pharmaceutically acceptable salts thereof are collectively referred to herein as "compounds of the present invention."

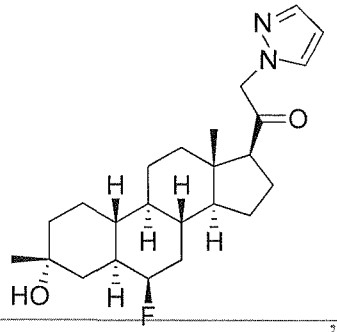
In another aspect, provided is a pharmaceutical composition comprising a compound of the present invention and a pharmaceutically acceptable excipient. In certain embodiments, the compound of

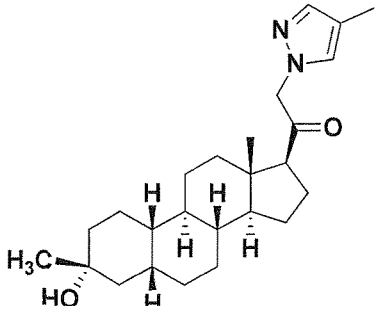
the present invention is provided in an effective amount in the pharmaceutical composition. In certain embodiments, the compound of the present invention is provided in a therapeutically effective amount. In certain embodiments, the compound of the present invention is provided in a prophylactically effective amount.

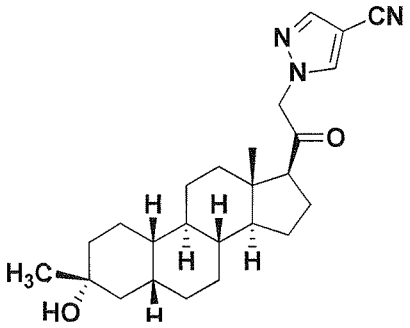
Compounds of the present invention as described herein, act, in certain embodiments, as GABA modulators, *e.g.*, effecting the $GABA_A$ receptor in either a positive or negative manner. As modulators of the excitability of the central nervous system (CNS), as mediated by their ability to modulate $GABA_A$ receptor, such compounds are expected to have CNS-activity.

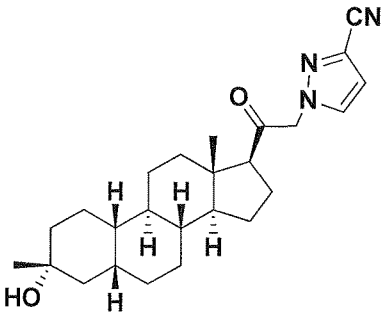
Thus, in another embodiment, provided are methods of treating a CNS–related disorder in a subject in need thereof, comprising administering to the subject an effective amount of a compound of the present invention. In certain embodiments, the CNS–related disorder is selected from the group consisting of a sleep disorder, a mood disorder, a schizophrenia spectrum disorder, a convulsive disorder, a disorder of memory and/or cognition, a movement disorder, a personality disorder, autism spectrum disorder, pain, traumatic brain injury, a vascular disease, a substance abuse disorder and/or withdrawal syndrome, and tinnitus. In certain embodiments, the compound is administered orally, subcutaneously, intravenously, or intramuscularly. In certain embodiments, the compound is administered chronically. In another aspect, there is provided the use of a compound of the invention, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating one of the following disorders: a sleep disorder, a mood disorder, a schizophrenia spectrum disorder, a convulsive disorder, a disorder of memory and/or cognition, a movement disorder, a personality disorder, autism spectrum disorder, pain, traumatic brain injury, a vascular disease, a substance abuse disorder and/or withdrawal syndrome, or tinnitus ~~a CNS-related disorder~~ in a subject in need thereof.

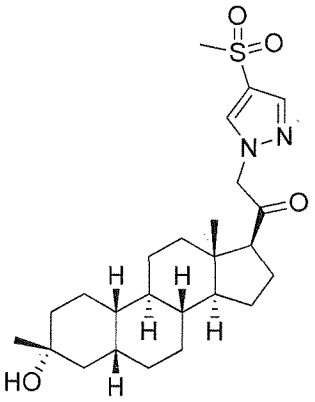
In another aspect, there is provided a compound of the formula:  , or a pharmaceutically acceptable salt thereof.

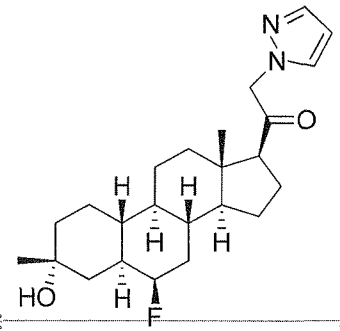
~~In another aspect, there is provided a compound of the formula:~~  ~~, or a pharmaceutically acceptable salt thereof.~~

In another aspect, there is provided a pharmaceutical composition comprising a compound of the formula:  , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another aspect, there is provided a pharmaceutical composition comprising a compound of the formula:  , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another aspect, there is provided a pharmaceutical composition comprising a compound of the formula: , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

In another aspect, there is provided a pharmaceutical composition comprising a compound of the formula: , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

~~In another aspect, there is provided a pharmaceutical composition comprising a compound of the formula: , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.~~

In another aspect, there is provided the use of a compound of the invention, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for alleviating or preventing postnatal depression in a subject in need thereof.

In another aspect, there is provided the use of a compound of the invention, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating tremor in a subject in need thereof.

Other objects and advantages will become apparent to those skilled in the art from a consideration of the ensuing Detailed Description, Examples, and Claims.

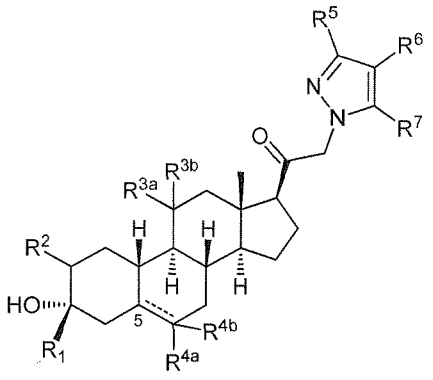
Definitions

Chemical Definitions

Definitions of specific functional groups and chemical terms are described in more detail below. The chemical elements are identified in accordance with the Periodic Table of the Elements, CAS version, *Handbook of Chemistry and Physics*, 75th Ed., inside cover, and specific functional groups are generally defined as described therein. Additionally, general principles of organic chemistry, as well as specific functional moieties and reactivity, are described in Thomas Sorrell, *Organic Chemistry*, University Science Books, Sausalito, 1999; Smith and March, *March's Advanced Organic Chemistry*, 5th Edition, John Wiley & Sons, Inc., New York, 2001; Larock,

CLAIMS

1. A compound of Formula (**I**):



(**I**)

or a pharmaceutically acceptable salt thereof;

wherein:

---- represents a single or double bond;

R^1 is C_{1-6} alkyl optionally substituted with alkoxy or one to two halo groups~~substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl;~~

R^2 is hydrogen, halogen, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocyclyl, or $-OR^{A2}$, wherein R^{A2} is hydrogen or substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl;

R^{3a} is hydrogen or $-OR^{A3}$, wherein R^{A3} is hydrogen or substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, or substituted or unsubstituted C_{3-6} carbocyclyl, and R^{3b} is hydrogen; or R^{3a} and R^{3b} are joined to form an oxo (=O) group;

each instance of R^{4a} and R^{4b} is independently hydrogen, substituted or unsubstituted C_{1-6} alkyl, or halogen, provided if the ---- between C5 and C6 is a single bond, then the hydrogen at C5 and R^{4a} are each independently provided in the *alpha* or *beta* configuration, and if the ---- between C5 and C6 is a double bond, then the hydrogen at C5 and R^{4b} ~~is~~ are absent;

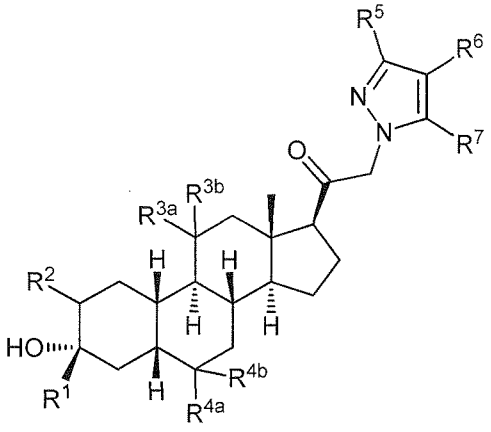
~~each instance of~~ at least one of R^5, R^6, and R^7 is~~, independently, hydrogen,~~ halogen, $-NO_2$, $-CN$, $-OR^{GA}$, $-N(R^{GA})_2$, $-C(=O)R^{GA}$, $-C(=O)OR^{GA}$, ~~$-OC(=O)R^{GA}$, $-OC(=O)OR^{GA}$, $-C(=O)N(R^{GA})_2$,~~

~~$N(R^{GA})C(=O)R^{GA}$, $-OC(=O)N(R^{GA})_2$, $-N(R^{GA})C(=O)OR^{GA}$, $-N(R^{GA})C(=O)N(R^{GA})_2$,~~ $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, $-OS(=O)_2R^{GA}$, $-S(=O)_2N(R^{GA})_2$, ~~$-N(R^{GA})S(=O)_2R^{GA}$,~~ or substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl~~substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocylyl, or substituted or unsubstituted 3- to 6- membered heterocylyl~~; and

each instance of R^{GA} is independently hydrogen, substituted or unsubstituted C_{1-6} alkyl, substituted or unsubstituted C_{2-6} alkenyl, substituted or unsubstituted C_{2-6} alkynyl, substituted or unsubstituted C_{3-6} carbocylyl, substituted or unsubstituted 3- to 6- membered heterocylyl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, an oxygen protecting group when attached to oxygen, nitrogen protecting group when attached to nitrogen, or two R^{GA} groups are taken with the intervening atoms to form a substituted or unsubstituted heterocylyl or heteroaryl ring.

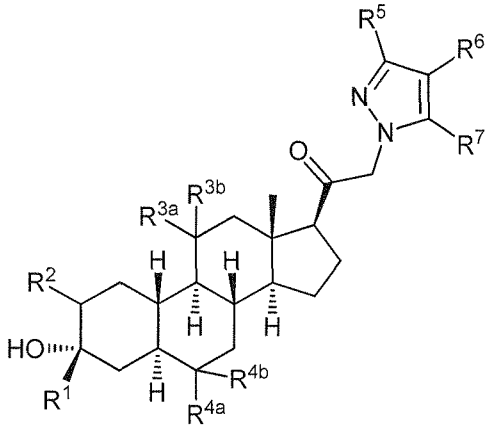
~~2. The compound of Formula (I) of claim 1, wherein R^1 is C_{1-6} alkyl optionally substituted with alkoxy or one to two halo groups, and at least one of R^5, R^6, and R^7 is halogen, $-NO_2$, $-CN$, $-OR^{GA}$, $-N(R^{GA})_2$, $-C(=O)R^{GA}$, $-C(=O)OR^{GA}$, $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, $-OS(=O)_2R^{GA}$, $-S(=O)_2N(R^{GA})_2$, substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.~~

~~3~~2. The compound of Formula (**I**) of claim 1, wherein the compound is selected from a compound of Formula (**I-A**):



(I-A)

43. The compound of Formula (**I**) of claim 1, wherein the compound is selected from a compound of Formula (**I-B**):



(I-B)

54. The compound of claim 1, wherein R^1 is unsubstituted C_{1-6} alkyl.

65. The compound of claim 1, wherein R^1 is a C_{1-6} alkyl substituted with alkoxy.

76. The compound of claim 1, wherein R^1 is a C_{1-6} alkyl substituted with one or two halo.

87. The compound of claim 1, wherein R^1 is $-CH_3$, $-CH_2CH_3$, $-CH_2F$, $-CHF_2$, $-CH_2O CH_2CH_3$, or $-CH_2OCH_3$.

98. The compound of claim 87, wherein R^1 is $-CH_3$.

~~10~~9. The compound of claim 1, wherein R^2 is –OH, –OCH_3, -OCH_2CH_3, –$OCH_2CH_2CH_3$, –CH_3, -CH_2CH_3, –$CH_2CH_2CH_3$, substituted or unsubstituted cyclopropyl, fluoro, or chloro.

~~11~~10. The compound of claim ~~10~~9, wherein R^2 is –CH_3 or –OCH_3.

~~12~~11. The compound of claim ~~11~~10, wherein R^2 is –OCH_3.

~~13~~12. The compound of claim 1, wherein R^2 is hydrogen.

~~14~~13. The compound of claim 1, wherein R^{3a} and R^{3b} are both hydrogen.

~~15~~14. The compound of claim 1, wherein ==== represents a single bond, and both of R^{4a} and R^{4b} are hydrogen.

~~16~~15. The compound of claim 1, wherein ==== represents a single bond, and both of R^{4a} and R^{4b} are fluoro.

~~17~~16. The compound of claim 1, wherein ==== represents a single bond, and R^{4a} is hydrogen, fluoro, -CH_3, or -CF_3.

~~18~~17. The compound of claim 1, wherein ==== represents a single bond, and R^{4a} is substituted or unsubstituted $C_{1\text{-}6}$ alkyl, or halogen, and R^{4b} is hydrogen.

~~19~~18. The compound of claim ~~18~~17, wherein R^{4a} is fluoro.

~~20~~19. The compound of claim 1, wherein at least one of R^5, R^6, and R^7 is hydrogen.

~~21~~20. The compound of claim 1, wherein at least two of R^5, R^6, and R^7 are hydrogen.

~~22. The compound of claim 1, wherein all of R^5, R^6, and R^7 are hydrogen.~~

~~23~~21. The compound of claim 1, wherein at least one of R^5, R^6, and R^7 is substituted or unsubstituted $C_{1\text{-}2}$ alkyl, -CO_2R^{GA}, -C(=O)R^{GA}, -CN, -NO_2, halogen, -SR^{GA}, -S(=O)

R^{GA}, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, or $-S(=O)_2N(R^{GA})_2$, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

~~24~~22. The compound of claim ~~23~~21, wherein at least one of R^5, R^6, and R^7 is -CN.

~~25~~23. The compound of claim ~~23~~21, wherein at least one of R^5, R^6, and R^7 is $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, or $-S(=O)_2N(R^{GA})_2$, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

~~26~~24. The compound of claim ~~25~~23, wherein at least one of R^5, R^6, and R^7 is $-S(=O)_2R^{GA}$.

~~27~~25. The compound of claim ~~25~~23, wherein R^{GA} is $-CH_3$.

~~28~~26. The compound of claim 1, wherein R^5 and R^7 are hydrogen.

~~29~~27. The compound of claim 1, wherein R^6 is halogen, $-NO_2$, -CN, $-OR^{GA}$, $-N(R^{GA})_2$, $-C(=O)R^{GA}$, $-C(=O)OR^{GA}$, $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, $-OS(=O)_2R^{GA}$, $-S(=O)_2N(R^{GA})_2$, substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

~~30~~28. The compound of claim ~~29~~27, wherein R^6 is $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, or $-S(=O)_2N(R^{GA})_2$, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

~~31~~29. The compound of claim ~~29~~27, wherein R^6 is halogen, $-NO_2$, –CN, or substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

~~32~~30. The compound of claim 1, wherein R^2, R^{3a}, R^{3b}, R^{4a}, and R^{4b} are hydrogen.

~~33~~31. The compound of claim 1, wherein at least three of R^2, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^5, R^6, and R^7 are hydrogen.

~~34~~32. The compound of claim 1, wherein at least four of R^2, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^5, R^6, and R^7 are hydrogen.

~~35~~33. The compound of claim 1, wherein at least five of R^2, R^{3a}, R^{3b}, R^{4a}, R^{4b}, R^5, R^6, and R^7 are hydrogen.

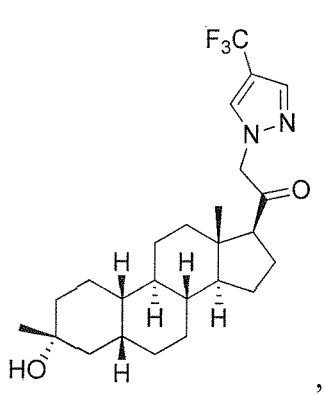
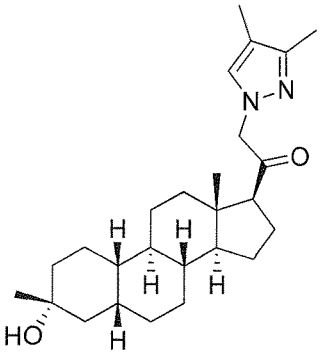
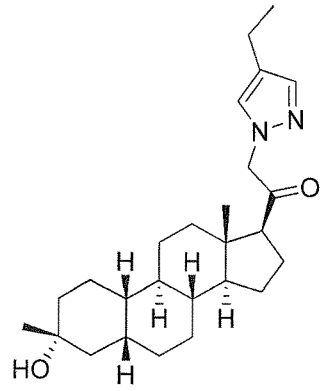
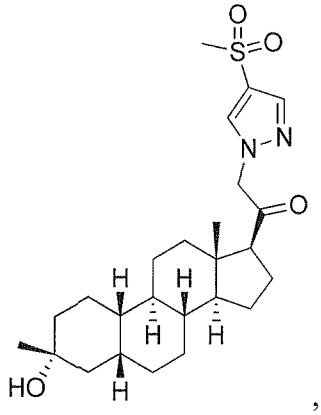
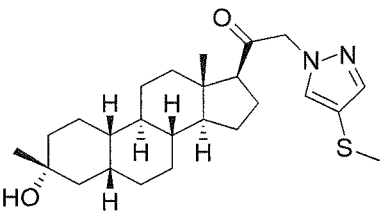
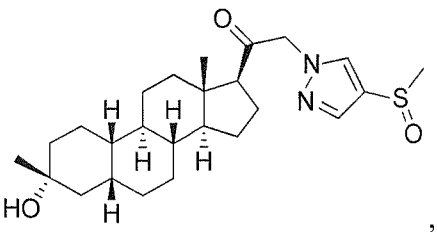
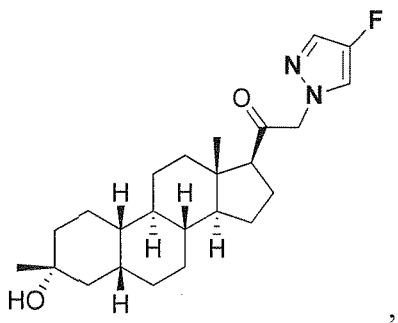
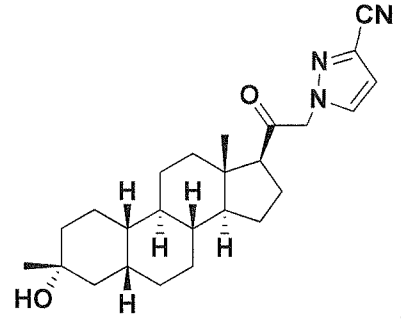
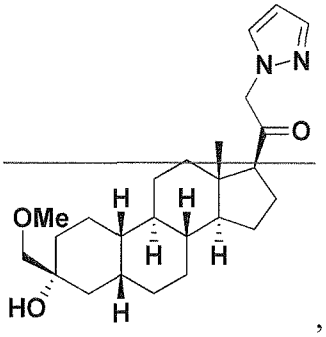
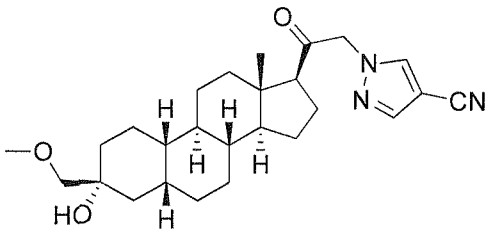
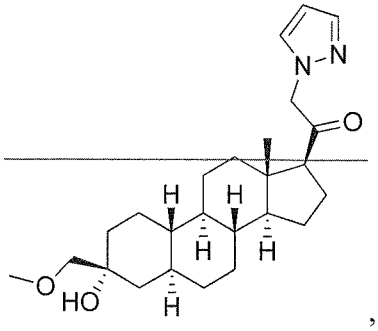
~~36~~34. The compound of claim ~~35~~33, wherein ~~,~~ R^6 is halogen, $-NO_2$, -CN, $-C(=O)R^{GA}$, $-C(=O)OR^{GA}$, $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, or substituted or unsubstituted C_{1-6} alkyl, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

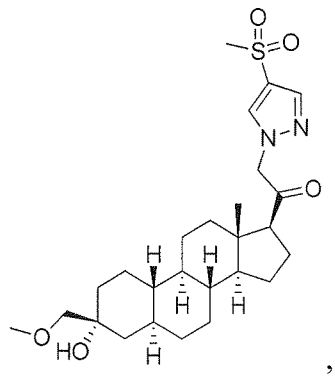
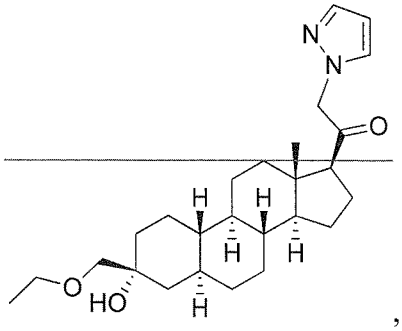
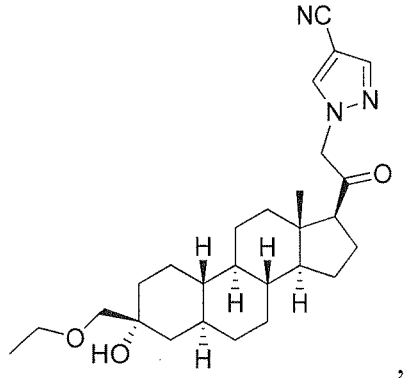
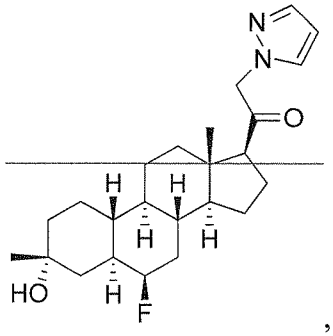
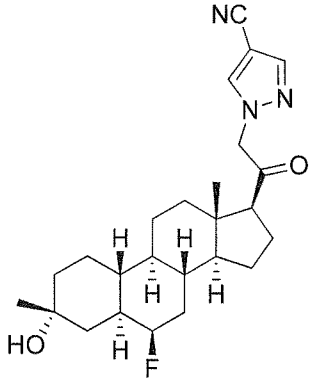
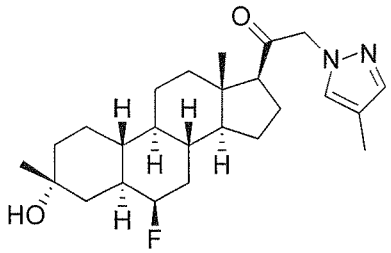
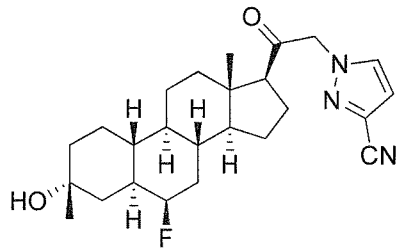
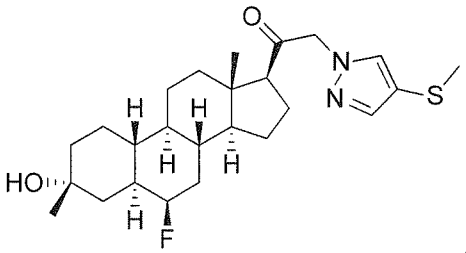
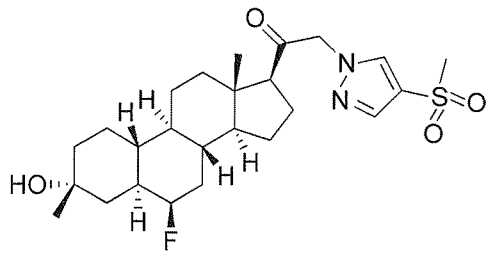
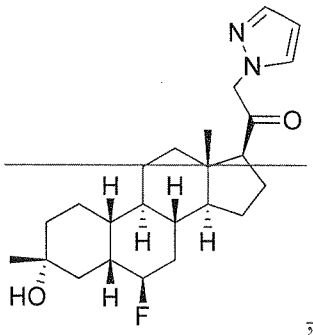
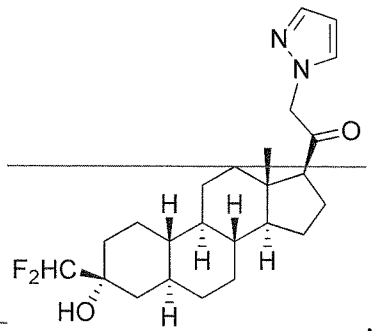
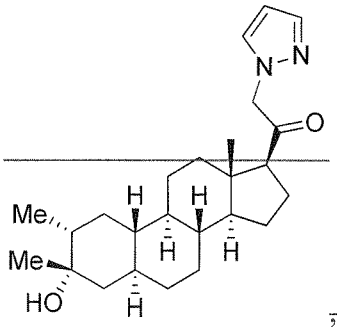
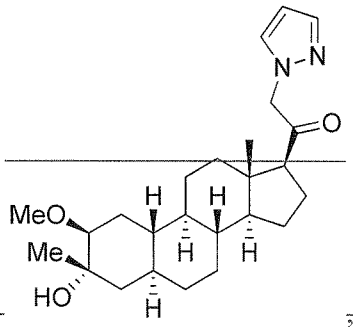
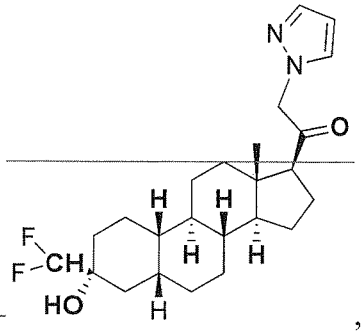
~~37~~35. The compound of claim ~~36~~34, wherein R^6 is $-SR^{GA}$, $-S(=O)R^{GA}$, or $-S(=O)_2R^{GA}$, ~~,~~ wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

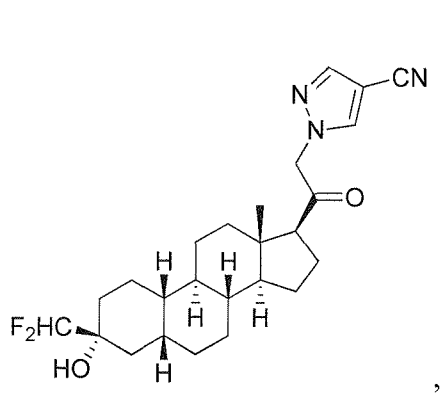
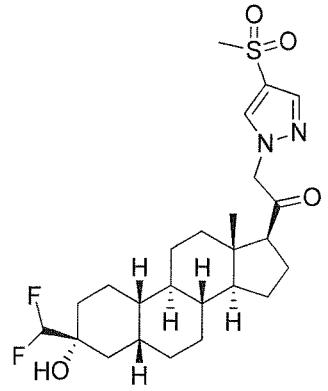
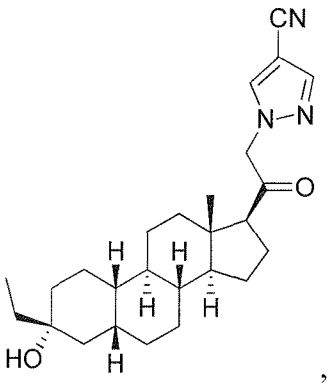
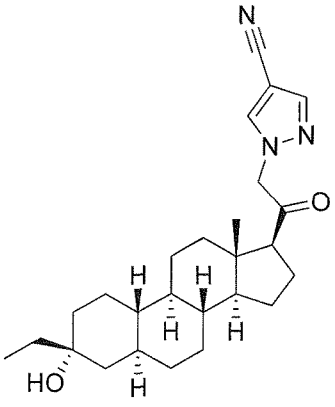
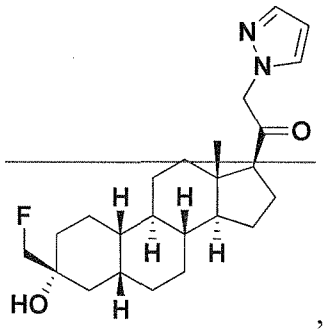
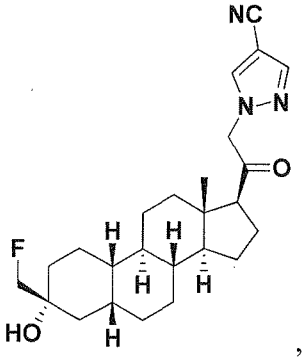
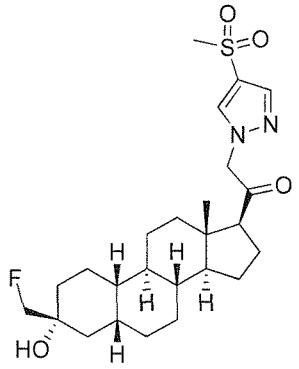
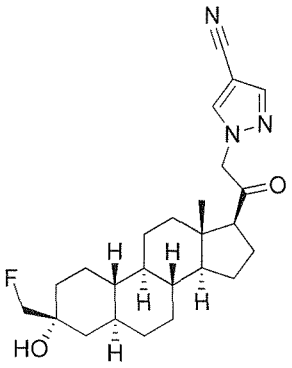
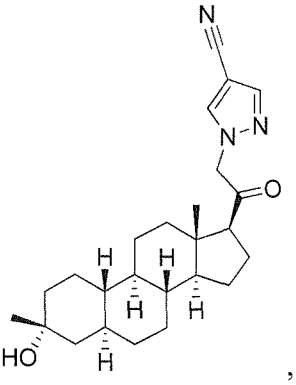
~~38~~36. The compound of claim ~~36~~34, wherein R^6 is -CN.

~~39. The compound of claim 36, wherein R^+ is substituted or unsubstituted C_{1-6} alkyl.~~

~~40~~37. The compound of claim 1, wherein the compound is selected from the group consisting of: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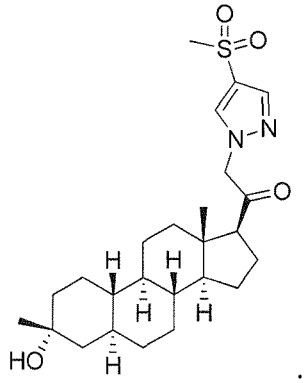
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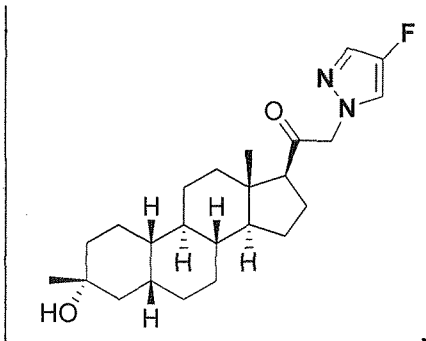
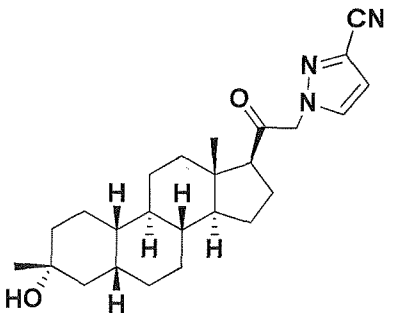
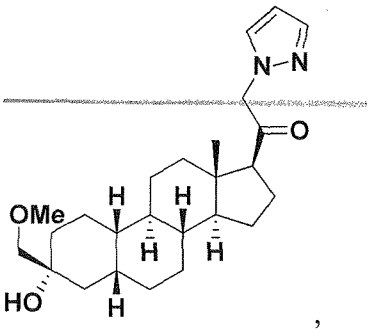
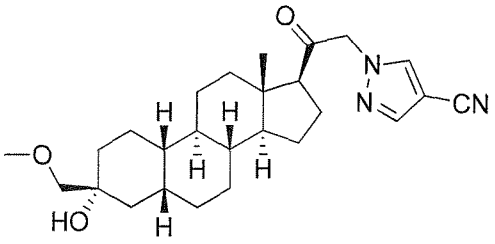
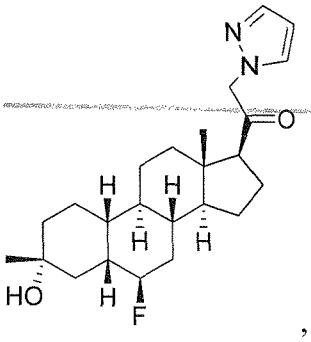
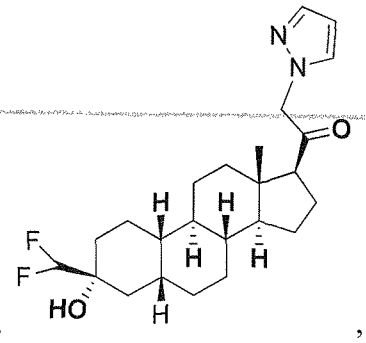
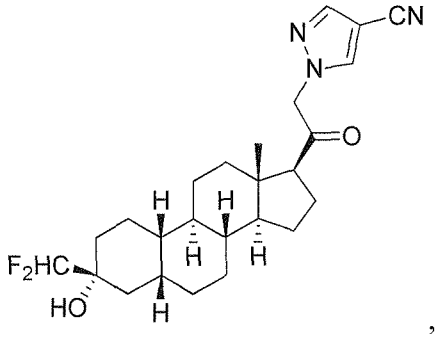
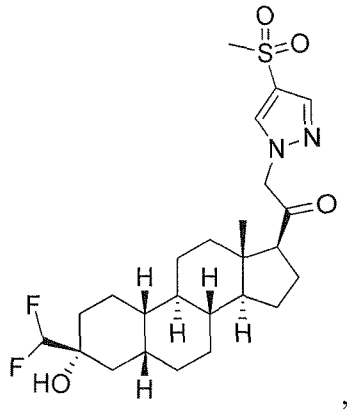
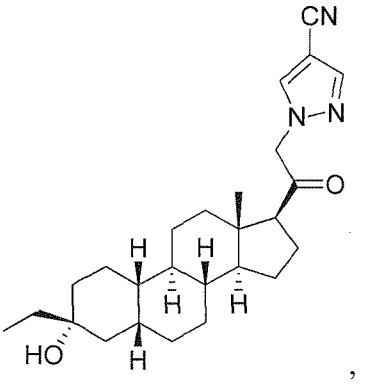
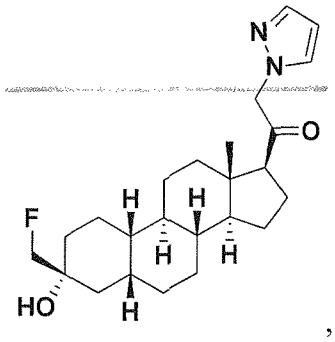
4138. The compound of claim 1, wherein the compound is selected from the group consisting of:



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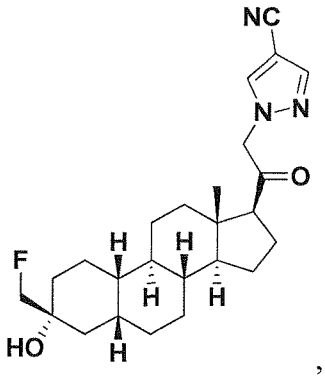

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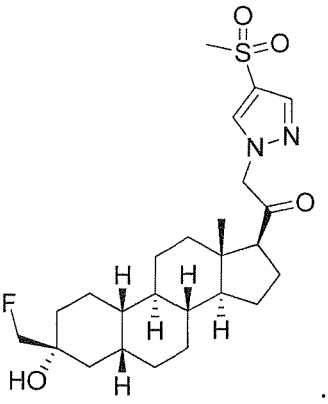

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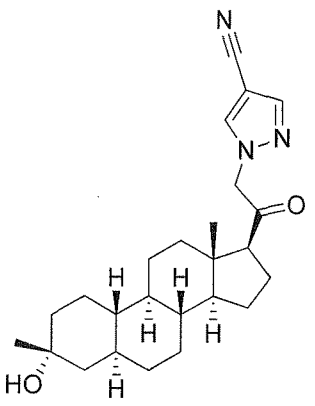
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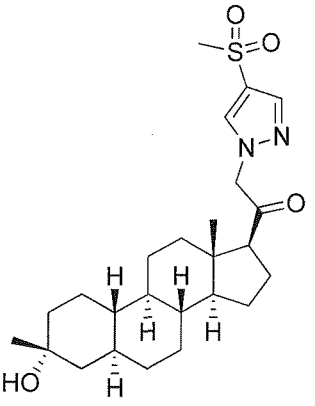
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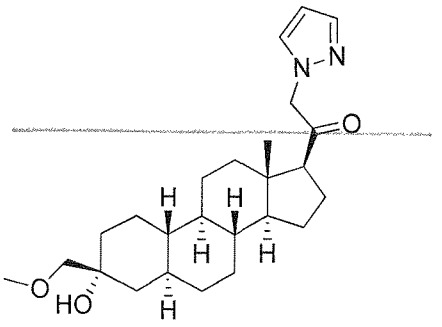
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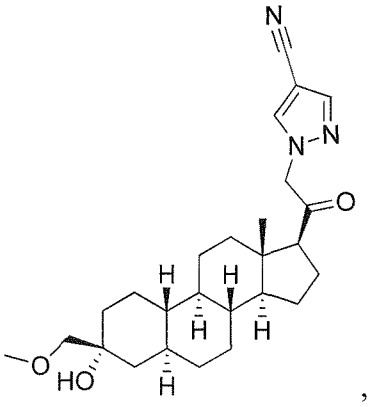
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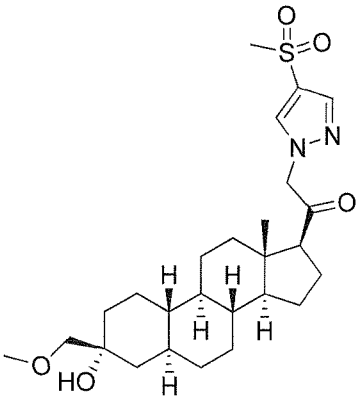
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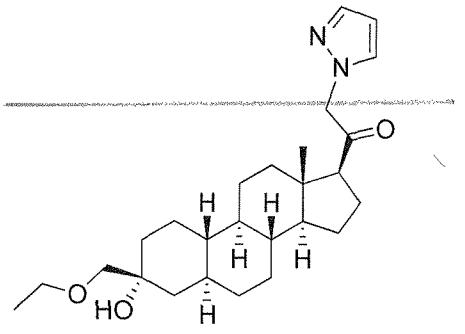
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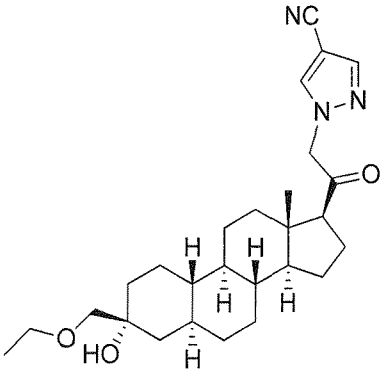
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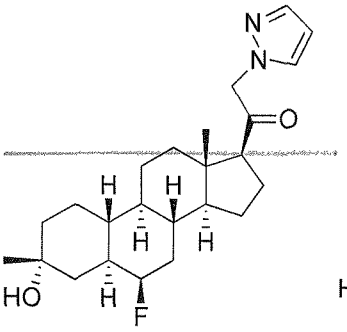
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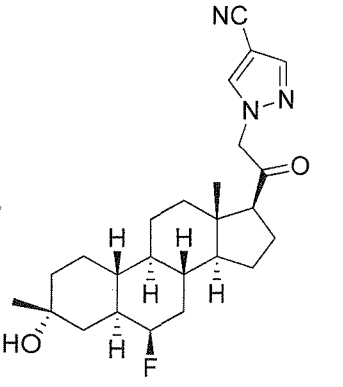
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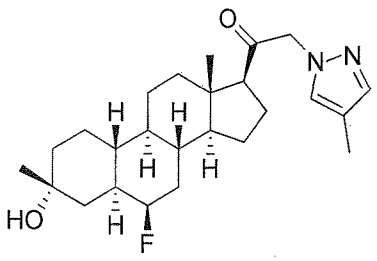
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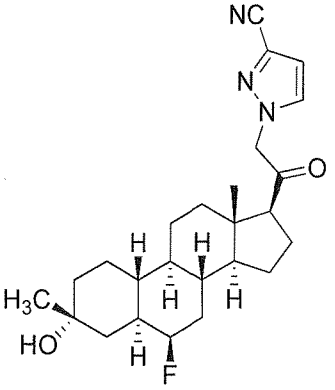
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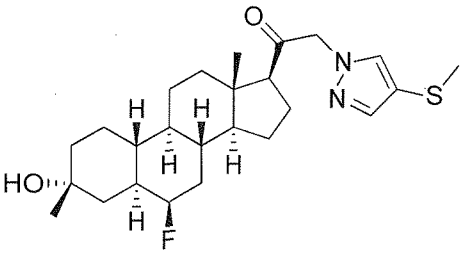
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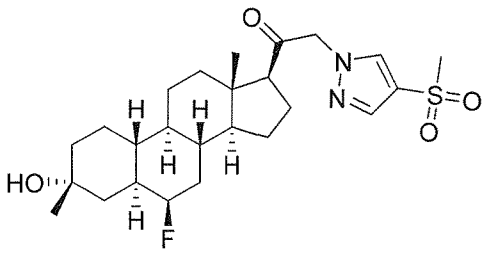
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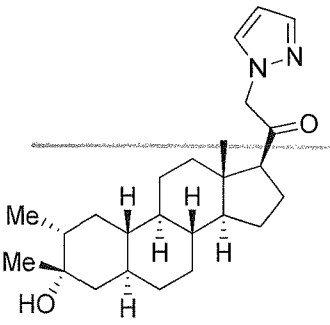
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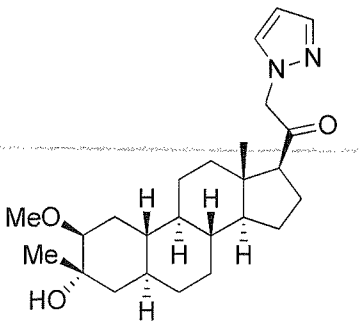
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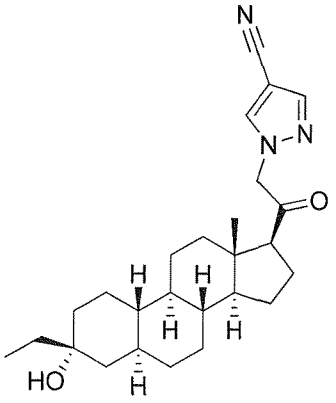
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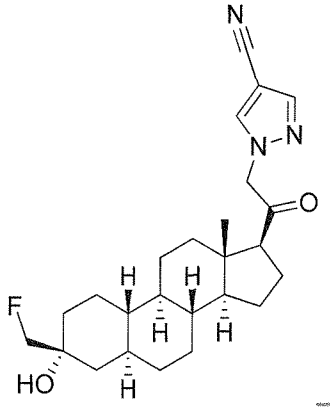
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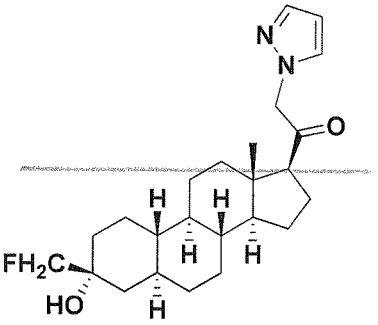
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4340. A pharmaceutical composition comprising a compound or pharmaceutically acceptable salt thereof of any one of the preceding claims, and a pharmaceutically acceptable excipient.

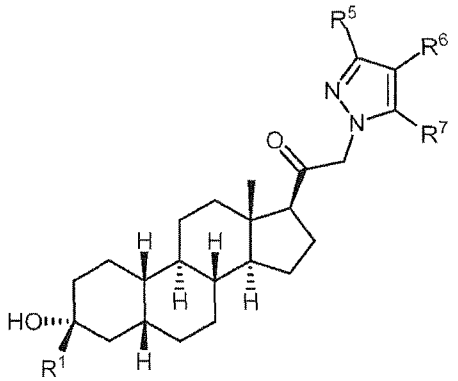
4441. Use of a compound of any one of claims 1 to 1918, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating one of the following disorders: a sleep disorder, a mood disorder, a schizophrenia spectrum disorder, a convulsive disorder, a disorder of memory and/or cognition, a movement disorder, a personality disorder, autism spectrum disorder, pain, traumatic brain injury, a vascular disease, a substance abuse disorder and/or withdrawal syndrome, or tinnitus ~~a CNS-related disorder~~ in a subject in need thereof.

4542. The use of claim 4441, wherein the ~~CNS-related~~ disorder is ~~a sleep disorder,~~ a mood disorder, ~~a schizophrenia spectrum disorder,~~ a convulsive disorder, ~~a disorder of memory and/or cognition,~~ or a movement disorder~~,, a personality disorder, autism spectrum disorder, pain, traumatic brain injury, a vascular disease, a substance abuse disorder and/or withdrawal syndrome, or tinnitus.~~

4643. The use of claim ~~44~~41 wherein the medicament is to be administered orally, subcutaneously, intravenously, or intramuscularly.

4744. The use of claim ~~44~~41 wherein the medicament is to be administered chronically.

4845. The compound of Formula (**I**) of claim 1, wherein the compound is selected from a compound of Formula (**I-A7**):

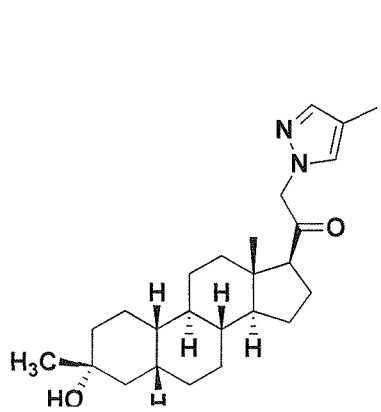


(**I-A7**)

4946. The compound of claim 4845, wherein at least one of R^5, R^6, and R^7 is substituted or unsubstituted C_{1-2} alkyl, $-CO_2R^{GA}$, $-C(=O)R^{GA}$, -CN, $-NO_2$, halogen, $-SR^{GA}$, $-S(=O)R^{GA}$, $-S(=O)_2R^{GA}$, $-S(=O)_2OR^{GA}$, or $-S(=O)_2N(R^{GA})_2$, wherein R^{GA} is substituted or unsubstituted C_{1-2} alkyl.

5047. The compound of claim 4946, wherein at least one of R^5, R^6, and R^7 is -CN.

5148. The compound of claim 1, wherein the compound is selected from the group consisting of: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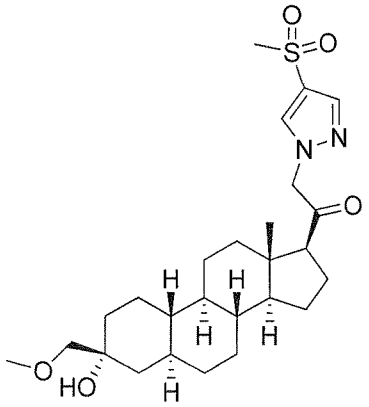
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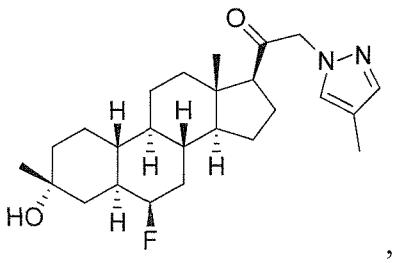
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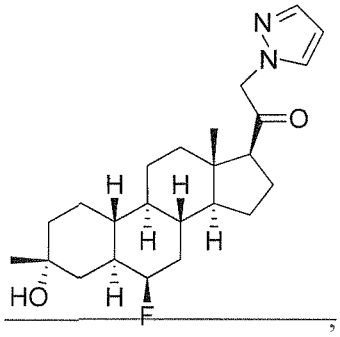
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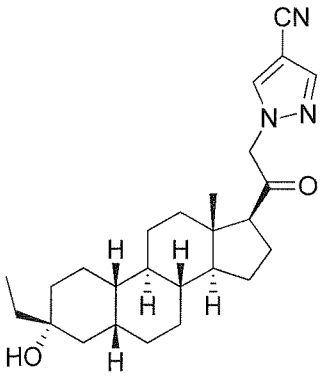
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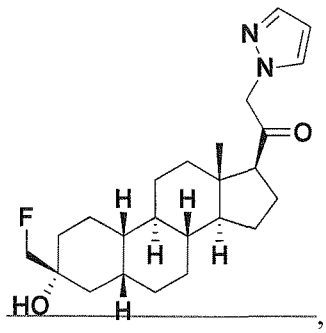
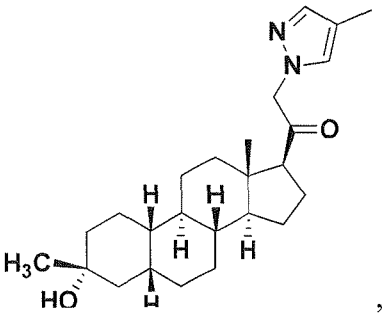
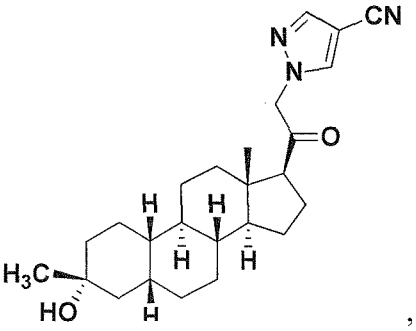
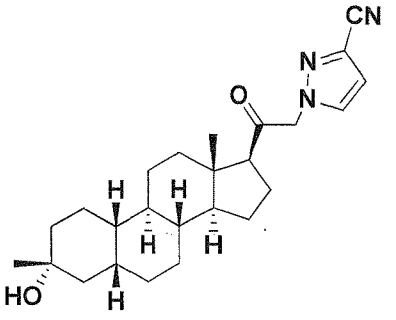
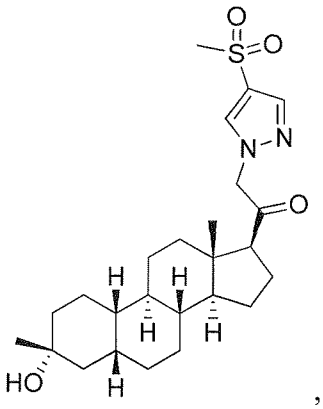
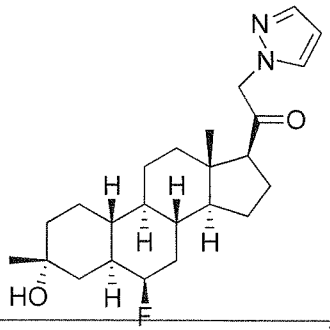

,

~~52~~49. A compound of the formula: , or a pharmaceutically acceptable salt thereof.

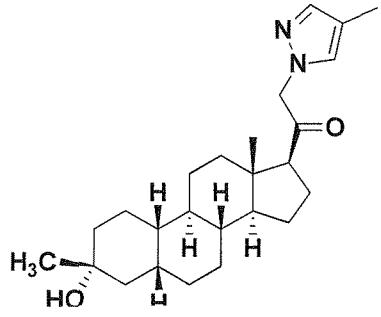
~~53~~50. A compound of the formula: , or a pharmaceutically acceptable salt thereof.

~~54~~51. A compound of the formula: , or a pharmaceutically acceptable salt thereof.

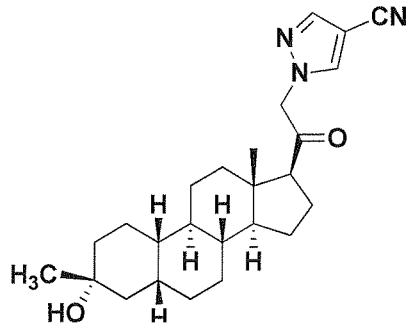
~~55~~52. A compound of the formula:  , or a pharmaceutically acceptable salt thereof.

~~56. A compound of the formula:~~  ~~, or a pharmaceutically acceptable salt thereof.~~

~~57~~53. A pharmaceutical composition comprising a compound of the formula:

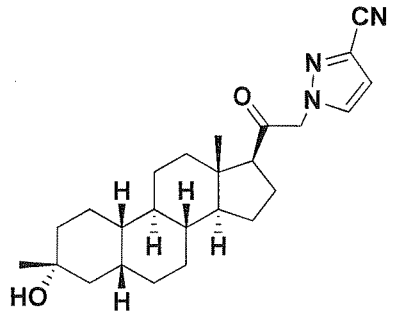
 , or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

~~58~~54. A pharmaceutical composition comprising a compound of the formula:



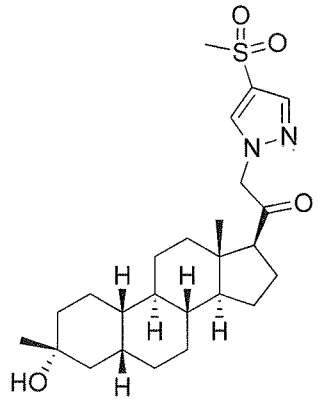
, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

~~59~~55. A pharmaceutical composition comprising a compound of the formula:



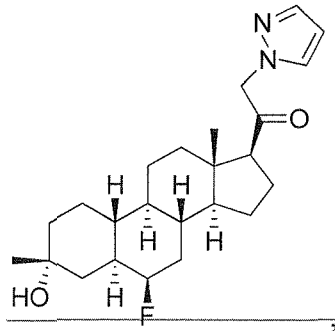
, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

~~60~~56. A pharmaceutical composition comprising a compound of the formula:



, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

~~61. A pharmaceutical composition comprising a compound of the formula:~~



~~, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.~~

57. The use of claim 41, wherein the mood disorder is depression.

58. Use of a compound of any one of claims 1 to 18, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for alleviating or preventing postnatal depression in a subject in need thereof.

59. Use of a compound of any one of claims 1 to 18, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating tremor in a subject in need thereof.