

(I) as described herein, or a pharmaceutically acceptable salt or a solvate thereof, or pharmaceutical compositions described herein.

5 An example of the disclosure is a method of treating a disorder selected from the group of neurological and psychiatric disorders selected from psychotic disorders and conditions; anxiety disorders; movement disorders; drug abuse; mood disorders; neurodegenerative disorders; disorders or conditions comprising as a symptom a deficiency in attention and/or cognition; stroke; and autistic disorders, comprising administering to a subject in need thereof, a therapeutically effective amount of a compound of Formula (I) as described herein, or a pharmaceutically acceptable salt or a solvate thereof, or a pharmaceutically acceptable salt or a solvate thereof or
10 pharmaceutical compositions described herein. According to another aspect, there is provided a compound as defined herein or a pharmaceutical composition as defined herein for use in treating, preventing or ameliorating a central nervous system disorder selected from the group of neurodegenerative disorders; disorders or conditions
15 comprising as a symptom a deficiency in attention and/or cognition; disorders related to memory acquisition and consolidation; and autistic disorder. According to another aspect, there is provided a compound as defined herein or a pharmaceutical composition as defined herein for use in ameliorating stroke.

20 An example of the disclosure is a method of treating a disorder selected from the group consisting of neurological and psychiatric disorders comprising administering to a subject in need thereof, a therapeutically effective amount of a compound of Formula (I) as described herein or a pharmaceutically acceptable salt or a solvate thereof, or pharmaceutical compositions described herein.

25 An example of the disclosure is a method of treating a disorder selected from the group of neurological and psychiatric disorders selected from psychotic disorders and conditions; anxiety disorders; movement disorders; drug abuse; mood disorders; neurodegenerative disorders; disorders or conditions comprising as a symptom a deficiency in attention and/or cognition; disorders related to memory acquisition and consolidation; stroke; and autistic disorders, comprising administering to a subject in
30 need thereof, a therapeutically effective amount of a compound of Formula (I) or a salt or a solvate thereof, or pharmaceutical compositions described herein. According to another aspect, there is provided use of a therapeutically effective amount of a compound as defined herein or a therapeutic amount of a pharmaceutical composition as defined herein in the manufacture of a medicament for treating, preventing or

ameliorating a disorder selected from the group of psychotic disorders and conditions; anxiety disorders; movement disorders; mood disorders; neurodegenerative disorders; disorders or conditions comprising as a symptom a deficiency in attention and/or cognition; disorders related to memory acquisition and consolidation; and autistic disorder. According to another aspect, there is provided use of a therapeutically effective amount of a compound as defined herein or a therapeutic amount of a pharmaceutical composition as defined herein in the manufacture of a medicament for ameliorating drug abuse or stroke.

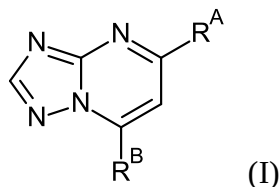
Also exemplifying the disclosure is a compound of Formula (I) or a salt or a solvate thereof, or a pharmaceutical composition described herein, for use as a medicament. According to another aspect, there is provided a compound as defined herein, of a pharmaceutical composition as defined herein, for use as a medicament.

Further exemplifying the disclosure is a compound of Formula (I) or a salt or a solvate thereof, or a pharmaceutical composition according to the disclosure for use in the treatment, prevention, amelioration, control or reduction of the risk of various neurological and psychiatric disorders associated with phosphodiesterase 2 dysfunction in a mammal, including a human, the treatment or prevention of which is affected or facilitated by the inhibition of phosphodiesterase 2.

An example of the disclosure is a compound of Formula (I) or a pharmaceutically acceptable salt or a solvate thereof according to the present disclosure.

Claims

1. A compound having the Formula (I)

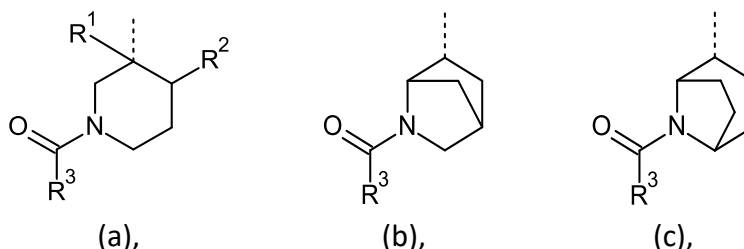


or a stereoisomeric form thereof, wherein

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R^A is selected from the group consisting of H, CH_3 , CN, and CHF_2 ;

R^B is a radical selected from the group consisting of (a), (b) and (c):



wherein

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R^1 is H, F or CH_3 ;

R^2 is H or C_{1-4} alkyl, in particular methyl or n-butyl; with the proviso that when R^2 is H, then R^1 is F or CH_3 ;

15 R^3 is Ar, Het, or Ar-C_{2-4} alkenyl; wherein

Ar represents phenyl or naphthyl, each optionally substituted with 1, 2 or 3

substituents, each independently selected from the group consisting of halo; CN;

$\text{NR}^{2A}\text{R}^{2B}$ wherein R^{2A} and R^{2B} are each independently selected from H and CH_3 ; OH;

20 C_{1-6} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents;

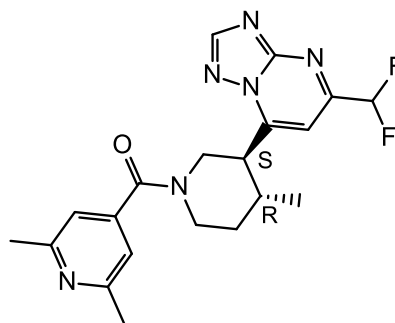
C_{1-6} alkyl substituted with CN; C_{3-6} cycloalkyl; C_{1-6} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents; and pyrazolyl;

Het represents

25 (i) a 5-membered heteroaryl selected from the group consisting of 1H-pyrrolyl; thienyl; furanyl; 1H-pyrazolyl; 1H-imidazolyl; 1,2-oxazolyl; 1,3-oxazolyl; and thiazolyl; each of which may be optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halo; C_{1-4} alkyl optionally substituted with 1, 2, or

3 independently selected halo substituents; $\text{NR}^{3\text{A}}\text{R}^{3\text{B}}$ wherein $\text{R}^{3\text{A}}$ and $\text{R}^{3\text{B}}$ are each independently selected from H and CH_3 ; and furan-2-yl; or

- (ii) a 6-membered heteroaryl selected from the group consisting of pyridyl,
 5 pyrimidinyl, pyrazinyl, and pyridazinyl; each of which may be optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halo; OH; CN; $\text{NR}^{4\text{A}}\text{R}^{4\text{B}}$ wherein $\text{R}^{4\text{A}}$ and $\text{R}^{4\text{B}}$ are each independently selected from H and CH_3 ; C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents; C_{1-4} alkyl substituted with OH; C_{3-6} cycloalkyl; C_{3-6} cycloalkyloxy;
 10 C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents; and C_{1-4} alkyloxy C_{1-4} alkyl; or
- (iii) a 8- to 10-membered bicyclic partially unsaturated heterocyclyl selected from the group consisting of 2,3-dihydro-1-benzofuranyl; 2H-chromenyl; 3,4-dihydro-2H-
 15 chromenyl; 2,3-dihydro-1H-indolyl optionally substituted at the 1-position with C_{1-4} alkyl, methylsulfonyl, 1-acetyl, or fluoroacetyl; 2,2-difluoro-1,3-benzodioxolyl; 1,3-benzodioxolyl optionally substituted with a methyl substituent; 3,4-dihydro-2H-1,4-benzoxazinyl optionally substituted with C_{1-4} alkyl; 5,6,7,8-tetrahydroimidazo[1,2-a]pyridinyl; 5,6,7,8-tetrahydroquinolinyl optionally substituted with a halo substituent;
 20 and 2,3-dihydropyrazolo[5,1-b][1,3]oxazolyl; or
- (iv) a 9- to 10-membered bicyclic heteroaryl selected from the group consisting of 1-benzofuranyl; 1-benzothiophenyl; 1H-indolyl; 1,3-benzoxazolyl; 1,3-benzothiazolyl; indolizinyl; 1H-benzimidazolyl; imidazo[1,2-a]pyridinyl; pyrazolo[1,5-a]pyridinyl;
 25 1H-thieno[2,3-c]pyrazolyl; imidazo[2,1-b]thiazolyl; pyrrolo[2,3-c]pyridinyl; thieno[3,2-b]pyridinyl; quinolinyl; isoquinolinyl; quinoxalinyl; 1,8-naphthyridinyl; and 1,6-naphthyridinyl; each of which may be optionally substituted with 1 or 2 substituents each independently selected from the group consisting of halo; OH; $\text{NR}^{5\text{A}}\text{R}^{5\text{B}}$ wherein $\text{R}^{5\text{A}}$ and $\text{R}^{5\text{B}}$ are each independently selected from H and CH_3 ;
 30 C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents; and C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents;
- 35 or an N-oxide, or a pharmaceutically acceptable salt or a solvate thereof;



with the proviso that the compound is not

2. The compound according to claim 1, wherein
 R^3 is Ar or Het; wherein

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Ar represents phenyl optionally substituted with 1, 2 or 3 substituents, each independently selected from the group consisting of halo; CN; OH; C_{1-6} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents; C_{1-6} alkyl substituted with CN; C_{3-6} cycloalkyl; and C_{1-6} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents;

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Het represents

(i) a 5-membered heteroaryl selected from the group consisting of 1H-pyrrolyl; thienyl; furanyl; 1H-pyrazolyl; 1H-imidazolyl; 1,2-oxazolyl; 1,3-oxazolyl; and thiazolyl; each of which may be optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halo; C_{1-4} alkyl optionally substituted with 1, 2, or 3 independently selected halo substituents; $NR^{3a}R^{3b}$ wherein R^{3a} and R^{3b} are each independently selected from H and CH_3 ; and furan-2-yl; or

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(ii) a 6-membered heteroaryl selected from the group consisting of pyridyl, pyrimidinyl, pyrazinyl, and pyridazinyl; each of which may be optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halo; OH; CN; $NR^{4a}R^{4b}$ wherein R^{4a} and R^{4b} are each independently selected from H and CH_3 ; C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents; C_{3-6} cycloalkyl; C_{3-6} cycloalkyloxy; and C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents; or

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(iii) a 8- to 10-membered bicyclic partially unsaturated heterocyclyl selected from the group consisting of 2,3-dihydro-1-benzofuranyl; 2H-chromenyl; 3,4-dihydro-2H-chromenyl; 2,3-dihydro-1H-indolyl optionally substituted at the 1-position with C_{1-4} alkyl, methylsulfonyl, 1-acetyl, or fluoroacetyl; 2,2,-difluoro-1,3-benzodioxolyl;

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1,3-benzodioxolyl optionally substituted with a methyl substituent;
 5,6,7,8-tetrahydroimidazo[1,2-a]pyridinyl; 5,6,7,8-tetrahydroquinolinyl optionally substituted with a halo substituent; and 2,3-dihydropyrazolo[5,1-b][1,3]oxazolyl; or

- 5 (iv) a 9- to 10-membered bicyclic heteroaryl selected from the group consisting of 1-benzofuranyl; 1-benzothiophenyl; 1H-indolyl; 1,3-benzoxazolyl; 1,3-benzothiazolyl; indolizinyl; 1H-benzimidazolyl; imidazo[1,2-a]pyridinyl; pyrazolo[1,5-a]pyridinyl; 1H-thieno[2,3-c]pyrazolyl; thieno[3,2-b]pyridinyl; quinolinyl; 1,8-naphthyridinyl; and 1,6-naphthyridinyl; each of which may be optionally substituted with 1 or 2
 10 substituents each independently selected from the group consisting of halo; OH; $\text{NR}^{3a}\text{R}^{3b}$ wherein R^{3a} and R^{3b} are each independently selected from H and CH_3 ; C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents; and C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents;
 15 or a pharmaceutically acceptable salt or a solvate thereof.

3. The compound according to claim 1 or 2, wherein R^A is CH_3 or CHF_2 .

20 4. The compound according to any one of claims 1 to 3, wherein R^B is (a) or (c).

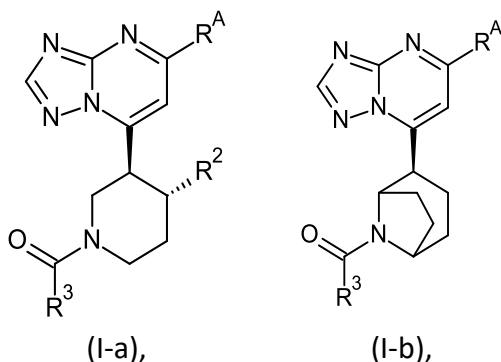
5. The compound according to any one of claims 1 to 4, wherein R^3 is Het.

6. The compound according to any one of claims 1 to 5, wherein R^3 is
 25 (i) a 6-membered heteroaryl selected from the group consisting of pyridyl, pyrimidinyl, pyrazinyl, and pyridazinyl; each of which may be optionally substituted with 1, 2 or 3 substituents each independently selected from the group consisting of halo; OH; CN; $\text{NR}^{4a}\text{R}^{4b}$ wherein R^{4a} and R^{4b} are each independently selected from H and CH_3 ; C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents;
 30 C_{3-6} cycloalkyl; C_{3-6} cycloalkyloxy; and C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents; or
 (ii) a 9- to 10-membered bicyclic heteroaryl selected from the group consisting of 1-benzofuranyl; 1-benzothiophenyl; 1H-indolyl; 1,3-benzoxazolyl; 1,3-benzothiazolyl; indolizinyl; 1H-benzimidazolyl; imidazo[1,2-a]pyridinyl; pyrazolo[1,5-a]pyridinyl;
 35 1H-thieno[2,3-c]pyrazolyl; thieno[3,2-b]pyridinyl; quinolinyl; 1,8-naphthyridinyl; and 1,6-naphthyridinyl; each of which may be optionally substituted with 1 or 2 substituents each independently selected from the group consisting of halo; OH;

$\text{NR}^{3a}\text{R}^{3b}$ wherein R^{3a} and R^{3b} are each independently selected from H and CH_3 ;
 C_{1-4} alkyl optionally substituted with 1, 2 or 3 independently selected halo substituents;
 and C_{1-4} alkyloxy optionally substituted with 1, 2 or 3 independently selected halo substituents.

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7. The compound according to any one of claims 1 to 6, having the Formula (I-a) or (I-b)



wherein R^A , R^2 and R^3 are as defined in any one of claims 1 to 6.

10 8. A pharmaceutical composition comprising a therapeutically effective amount of a compound according to any one of claims 1 to 7 and a pharmaceutically acceptable carrier.

15 9. A compound according to any one of claims 1 to 7, of a pharmaceutical composition according to claim 8, for use as a medicament.

20 10. A compound according to any one of claims 1 to 7 or a pharmaceutical composition according to claim 8 for use in treating, preventing or ameliorating a central nervous system disorder selected from the group of neurodegenerative disorders; disorders or conditions comprising as a symptom a deficiency in attention and/or cognition; disorders related to memory acquisition and consolidation; and autistic disorder.

25 11. A compound or a pharmaceutical composition for use according to claim 10, wherein the neurodegenerative disorders are selected from the group of Parkinson's disease; Huntington's disease; dementia; Alzheimer's disease; multi-infarct dementia; AIDS-related dementia or frontotemporal dementia;

- the disorders or conditions comprising as a symptom a deficiency in attention and/or cognition are selected from the group of dementia associated with Alzheimer's disease; multi-infarct dementia; dementia due to Lewy body disease; alcoholic dementia or substance-induced persisting dementia; dementia associated with intracranial tumours or cerebral trauma; dementia associated with Huntington's disease; dementia associated with Parkinson's disease; AIDS-related dementia; dementia due to Pick's disease; dementia due to Creutzfeldt-Jakob disease; delirium; amnestic disorder; post-traumatic stress disorder; stroke; progressive supranuclear palsy; mental retardation; a learning disorder; attention-deficit/hyperactivity disorder (ADHD); mild cognitive impairment; Asperger's syndrome; age-related cognitive impairment; and cognitive impairment related to perception, concentration, learning or memory; the disorders related to memory acquisition and consolidation are selected from memory disorders.
12. A compound according to any one of claims 1 to 7 or a pharmaceutical composition according to claim 8 for use in ameliorating stroke.
13. A process for preparing a pharmaceutical composition as defined in claim 8, characterized in that a pharmaceutically acceptable carrier is intimately mixed with a therapeutically effective amount of a compound as defined in any one of claims 1 to 7.
14. A compound according to any one of claims 1 to 7 in combination with an additional pharmaceutical agent for use in the treatment, prevention or amelioration of a condition as cited in any one of claims 10 to 11 or in the amelioration of stroke as cited in claim 12.
15. A product comprising
- (a) a compound as defined in any one of claims 1 to 7; and
 - (b) an additional pharmaceutical agent,
- as a combined preparation for simultaneous, separate or sequential use in the treatment, prevention or amelioration of a condition as cited in any one of claims 10 to 11 or in the amelioration of stroke as cited in claim 12.
16. Use of a therapeutically effective amount of a compound according to any one of claims 1 to 7 or a therapeutic amount of a pharmaceutical composition according to claim 8 in the manufacture of a medicament for treating, preventing or ameliorating a

disorder selected from the group of psychotic disorders and conditions; anxiety disorders; movement disorders; mood disorders; neurodegenerative disorders; disorders or conditions comprising as a symptom a deficiency in attention and/or cognition; disorders related to memory acquisition and consolidation; and autistic disorder.

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17. Use of a therapeutically effective amount of a compound according to any one of claims 1 to 7 or a therapeutic amount of a pharmaceutical composition according to claim 8 in the manufacture of a medicament for ameliorating drug abuse or stroke.