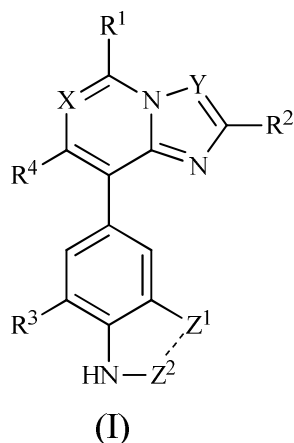


Claims

1. A compound of Formula (I):



wherein

X is N or CH;

Y is selected from the group consisting of: N, CH, CF, and CCl;

R¹ is H or CH₃;

R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, C₃₋₈cycloalkyl and phenyl;

R³ is selected from the group consisting of: H, halo, CH₃, and CF₃;

R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

$\text{-}\overset{\text{Z}^1}{\text{Z}^1}\text{-}\text{-}\overset{\text{Z}^2}{\text{Z}^2}\text{-}$ is selected from the group consisting of: -CH=N-; -CF=N-; -CH₂-C(=O)-; and -S-C(=O)-; and

pharmaceutically acceptable salts, N-oxides, or solvates thereof.

2. The compound of claim 1, wherein X is:

(i) N; or:

(ii) CH.

3. The compound of claim 1, wherein Y is:

(i) N; or:

(ii) CH, CF, or Cl; or:

(iii) CH.

4. The compound of claim 1, wherein R¹ is:

- (i) H; or:
- (ii) CH₃.

5. The compound of claim 1, wherein R² is:

- (i) C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, cyclopropyl, cyclobutyl, cyclopentyl, or phenyl; or:
- (ii) CH₃, CH₂CH₃, CH(CH₃)₂, C(CH₃)₃, CF₂H, CF₃; or:
- (iii) CF₃.

6. The compound of claim 1, wherein R³ is H, F, Cl, or CH₃.

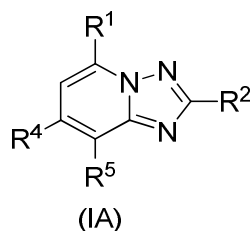
7. The compound of claim 1, wherein R⁴ is:

- (i) C₁₋₆alkyl, C₁₋₆haloalkyl, Cl, CN, OCH₃, phenyl substituted with F, cyclopropyl, cyclopentyl, azetidiny, or azetidiny substituted with F; or:
- (ii) CF₃.

8. The compound of claim 1, wherein $\begin{smallmatrix} \text{---} \end{smallmatrix} \begin{smallmatrix} \text{---} \end{smallmatrix} \text{Z}^1 \text{---} \text{---} \text{Z}^2 \text{---} \begin{smallmatrix} \text{---} \end{smallmatrix} \begin{smallmatrix} \text{---} \end{smallmatrix}$ is:

- (i) -CH=N-; or:
- (ii) CH₂-C(=O)-.

9. The compound of claim 1, and pharmaceutically acceptable salts, solvates, or N-oxides thereof, having the structure of Formula (1A):



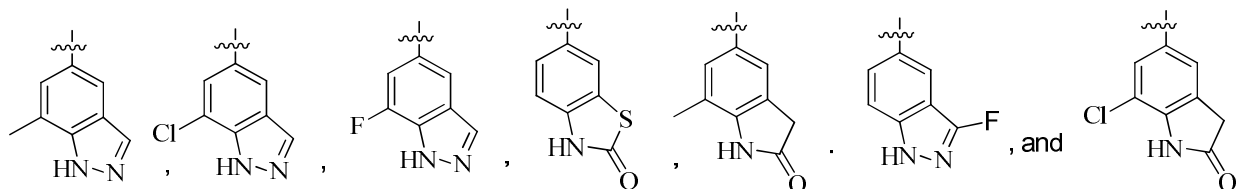
wherein

R¹ is H;

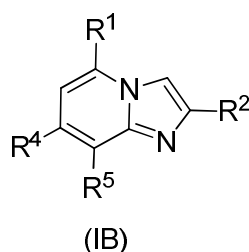
R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, and C₃₋₈cycloalkyl;

R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

R⁵ is selected from the group consisting of:



10. The compound of claim 1, and pharmaceutically acceptable salts, solvates, or N-oxides thereof, having the structure of Formula (1B):



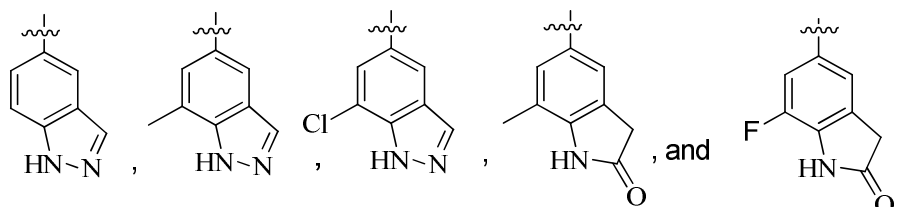
wherein

R¹ is H;

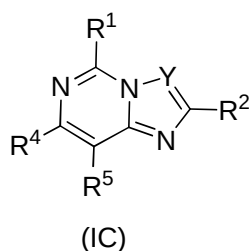
R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, C₃₋₈cycloalkyl and phenyl;

R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

R⁵ is selected from the group consisting of:



11. The compound of claim 1, and pharmaceutically acceptable salts, solvates, or N-oxides thereof, having the structure of Formula (1C):



wherein

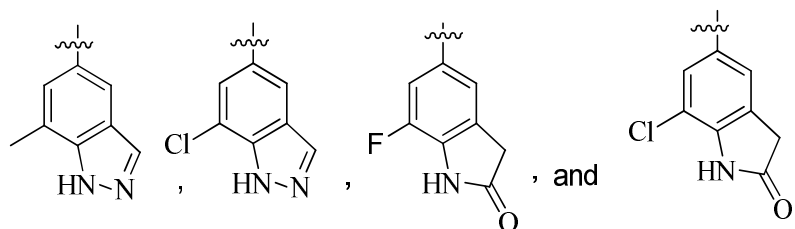
Y is selected from the group consisting of: CH, CF, and CCl;

R¹ is H or CH₃;

R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, C₃₋₈cycloalkyl and phenyl;

R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

R⁵ is selected from the group consisting of:



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

8-(7-Chloro-1H-indazol-5-yl)-2-(difluoromethyl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-Chloro-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

6-(2,7-Bis(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl)benzo[d]thiazol-2(3H)-one;

2-Cyclobutyl-7-(4-fluorophenyl)-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-a]pyridine;

6-(7-(4-Fluorophenyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl)benzo[d]thiazol-2(3H)-one;

7-Cyclopentyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(Azetidin-1-yl)-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(3-Fluoroazetidin-1-yl)-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-
 [1,2,4]triazolo[1,5-a]pyridine;
 2-Cyclopentyl-7-(4-fluorophenyl)-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-
 a]pyridine;
 8-(7-Methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine-7-
 carbonitrile;
 7-Methyl-5-[7-methyl-2-(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl]indolin-2-one;
 5-(7-(4-Fluorophenyl)-2-(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-1H-indazole;
 8-(7-Chloro-1H-indazol-5-yl)-2,7-bis(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-(difluoromethyl)-7-(trifluoromethyl)imidazo[1,2-
 c]pyrimidine;
 2-(Difluoromethyl)-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-
 c]pyrimidine;
 8-(7-Methyl-1H-indazol-5-yl)-2-(difluoromethyl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-
 a]pyridine;
 7-Chloro-5-(2-(difluoromethyl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-
 yl)indolin-2-one;
 7-Methyl-5-(2-(difluoromethyl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-
 yl)indolin-2-one;
 8-(7-Chloro-1H-indazol-5-yl)-2,7-bis(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;
 8-(7-Methyl-1H-indazol-5-yl)-2,7-bis(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;
 5-(2,7-Bis(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl)-7-chloroindolin-2-one;
 5-(2,7-Bis(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl)-7-methylindolin-2-one;
 8-(7-Chloro-1H-indazol-5-yl)-7-(difluoromethyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-
 a]pyridine;
 8-(7-Methyl-1H-indazol-5-yl)-7-(difluoromethyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-
 a]pyridine;
 7-Chloro-5-(7-(difluoromethyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-
 yl)indolin-2-one;
 7-Methyl-5-(7-(difluoromethyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-
 yl)indolin-2-one;
 7-Methyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;
 7-Ethyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;
 7-Methoxy-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

8-(7-Chloro-1H-indazol-5-yl)-2-cyclopropyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

2-Cyclopropyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

8-(7-Chloro-1H-indazol-5-yl)-2-methyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

2-Methyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

8-(7-Chloro-1H-indazol-5-yl)-2-ethyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

2-Ethyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

5-[2-Ethyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl]-7-methyl-indolin-2-one;

8-(7-Chloro-1H-indazol-5-yl)-2-isopropyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

2-Isopropyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

5-[2-Isopropyl-7-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridin-8-yl]-7-methyl-indolin-2-one;

2-Isopropyl-7-methyl-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-a]pyridine;

7-Chloro-8-(7-chloro-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(4-Fluorophenyl)-8-(7-fluoro-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(4-Fluorophenyl)-8-(7-chloro-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(4-Fluorophenyl)-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

8-(3-Fluoro-1H-indazol-5-yl)-7-(4-fluorophenyl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

2-(Difluoromethyl)-7-(4-fluorophenyl)-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-a]pyridine;

7-(4-Fluorophenyl)-2-(methoxymethyl)-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-a]pyridine;

2-Cyclopropyl-7-(4-fluorophenyl)-8-(7-methyl-1H-indazol-5-yl)-[1,2,4]triazolo[1,5-a]pyridine;

7-Isopropyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine;

8-(1H-Indazol-5-yl)-7-methyl-2-(trifluoromethyl)imidazo[1,2-a]pyridine;

7-Fluoro-5-[7-methyl-2-(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl]indolin-2-one;
 7-Methyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)imidazo[1,2-a]pyridine;
 2-tert-Butyl-7-methyl-8-(7-methyl-1H-indazol-5-yl)imidazo[1,2-a]pyridine;
 5-(2-tert-Butyl-7-methyl-imidazo[1,2-a]pyridin-8-yl)-7-methyl-indolin-2-one;
 7-Methyl-5-(7-methyl-2-phenyl-imidazo[1,2-a]pyridin-8-yl)indolin-2-one;
 7-Methyl-8-(7-methyl-1H-indazol-5-yl)-2-phenyl-imidazo[1,2-a]pyridine;
 2-Cyclopropyl-7-methyl-8-(7-methyl-1H-indazol-5-yl)imidazo[1,2-a]pyridine;
 5-[7-Methoxy-2-(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl]-7-methyl-indolin-2-one;
 7-Methoxy-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)imidazo[1,2-a]pyridine;
 7-Chloro-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)imidazo[1,2-a]pyridine;
 5-(2,7-Bis(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-1H-indazole;
 5-(2,7-Bis(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-7-methyl-1H-indazole;
 8-(7-Methyl-1H-indazol-5-yl)-2,7-bis(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-ethyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 2-Ethyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-isopropyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-cyclopropyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 2-Cyclopropyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 7-Chloro-5-[2-cyclopropyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidin-8-yl]indolin-2-one;
 5-[2-Cyclopropyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidin-8-yl]-7-fluoro-indolin-2-one;
 8-(7-Chloro-1H-indazol-5-yl)-7-isopropyl-2-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-(difluoromethyl)-7-isopropyl-imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-ethyl-2-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 7-Ethyl-8-(7-methyl-1H-indazol-5-yl)-2-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-2-(difluoromethyl)-7-ethyl-imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-methyl-2-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-cyclopropyl-2-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-cyclopropyl-2-(difluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-cyclopropyl-5-methyl-2-trifluoromethyl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-cyclopropyl-2-(difluoromethyl)-5-methyl-imidazo[1,2-c]pyrimidine;
 3-Chloro-8-(7-chloro-1H-indazol-5-yl)-2-cyclopropyl-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine; and

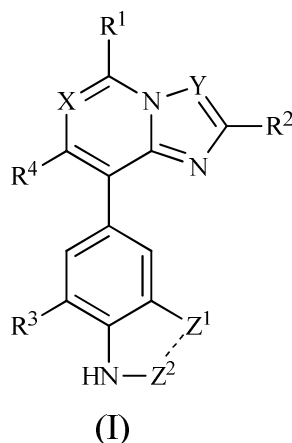
8-(7-Chloro-1H-indazol-5-yl)-2-cyclopropyl-3-fluoro-7-(trifluoromethyl)imidazo[1,2-c]pyrimidine;
 5-(2,7-Bis(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-7-chloroindolin-2-one;
 5-(2,7-Bis(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-7-methylindolin-2-one;
 5-(2,7-Bis(trifluoromethyl)imidazo[1,2-a]pyridin-8-yl)-7-chloro-1H-indazole;
 8-(7-Chloro-1H-indazol-5-yl)-2-isopropyl-7-(trifluoromethyl)imidazo[1,2-a]pyridine;
 2-Isopropyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-a]pyridine;
 2-Cyclopropyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-a]pyridine;
 2-Ethyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-a]pyridine;
 2-(Difluoromethyl)-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-a]pyridine; and
 2-Methyl-8-(7-methyl-1H-indazol-5-yl)-7-(trifluoromethyl)imidazo[1,2-a]pyridine; and
 pharmaceutically acceptable salts, N-oxides or solvates thereof.

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

7-Cyclopropyl-2-(difluoromethyl)-5-methyl-8-(7-(trifluoromethyl)-1H-indazol-5-yl)imidazo[1,2-c]pyrimidine;
 8-(7-Chloro-1H-indazol-5-yl)-7-(difluoromethyl)-2-ethyl-[1,2,4]triazolo[1,5-a]pyridine;
 and
 8-(7-chloro-1H-indazol-5-yl)-2-cyclopropyl-7-(difluoromethyl)-[1,2,4]triazolo[1,5-a]pyridine; and pharmaceutically acceptable salts, N-oxides or solvates thereof.

14. A pharmaceutical composition comprising:

(A) an effective amount of at least one compound of Formula (I):



wherein

X is N or CH;

Y is selected from the group consisting of: N, CH, CF, or CCl;

R¹ is H or CH₃;

R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, C₃₋₈cycloalkyl and phenyl;

R³ is selected from the group consisting of: H, halo, CH₃, and CF₃;

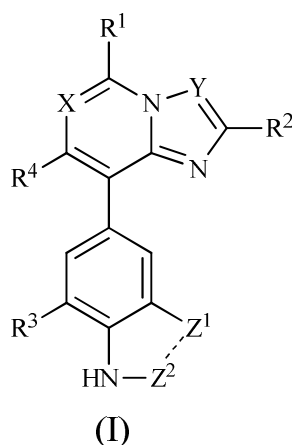
R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

$\text{--}\overset{\text{Z}^1}{\text{--}}\text{--}\overset{\text{Z}^2}{\text{--}}\text{--}$ is selected from the group consisting of: -CH=N-; -CF=N-; -CH₂-C(=O)-; and -S-C(=O)-; and

pharmaceutically acceptable salts, N-oxides or solvates of compounds of Formula (I); and (B) at least one pharmaceutically acceptable excipient.

15. A pharmaceutical composition comprising an effective amount of at least one compound of claim 13 and at least one pharmaceutically acceptable excipient.

16. A compound of Formula (I) for use in a method of treating a subject suffering from or diagnosed with a disease, disorder, or medical condition mediated by AMPA receptor activity, comprising administering to a subject in need of such treatment an effective amount of at least one such compound:



wherein

X is N or CH;

Y is selected from the group consisting of: N, CH, CF, and CCl;

R¹ is H or CH₃;

R² is selected from the group consisting of: C₁₋₆alkyl, C₁₋₆haloalkyl, CH₂OCH₃, C₃₋₈cycloalkyl and phenyl;

R³ is selected from the group consisting of: H, halo, CH₃, and CF₃;

R⁴ is selected from the group consisting of: halo, C₁₋₆alkyl, C₁₋₆alkoxy, C₁₋₆haloalkyl, CN, C₃₋₈cycloalkyl, azetidiny, azetidiny substituted with F, and phenyl substituted with F; and

$\begin{smallmatrix} \text{---} \text{Z}^1 \text{---} \end{smallmatrix} \text{---} \text{Z}^2 \text{---}$ is selected from the group consisting of: -CH=N-; -CF=N-; -CH₂-C(=O)-; and -S-C(=O)-; and

pharmaceutically acceptable salts, N-oxides or solvates of compounds of Formula (I).

17. The compound for use of claim 16, wherein the AMPA receptor mediated disease, disorder, or medical condition is selected from cerebral ischemia, head injury, spinal cord injury, Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis (ALS), Huntington's chorea, AIDS nervous disturbance, epilepsy, mental disorder, mobility disturbance, pain, spasticity, nervous disturbance by toxin in food, various neurodegenerative diseases, various mental diseases, chronic pain, migraine, cancer pain, diabetic neuropathy, encephalitis, acute disseminated encephalomyelitis, acute demyelinating polyneuropathy (Guillain Barre syndrome), chronic inflammatory demyelinating polyneuropathy, multiple sclerosis, Marchifava-Bignami disease, central pontine myelinolysis, Devic syndrome, Balo disease, HIV- or HTLV-myelopathy, progressive multifocal leucoencephalopathy, a secondary demyelinating disorder (for example, CNS lupus erythematoses, polyarteritis nodosa, Sjogren syndrome, sarcoidosis, isolated cerebral vasculitis, etc.), schizophrenia, prodromal schizophrenia, cognitive disorder, depression, anxiety disorders, anxious depression, and bipolar disorder, preferably wherein the AMPA receptor mediated disease, disorder or condition is depression, post traumatic stress disorder, epilepsy, schizophrenia, prodromal schizophrenia, or a cognitive disorder.