

WHAT IS CLAIMED:

1. A method for preventing or treating a psychological disorder, comprising the step of:

5 administering a serotonin agonist in combination with a serotonin receptor 2A antagonist, wherein said agonist is administered separately, sequentially or simultaneously with said antagonist.

2. The method of claim 1, wherein said serotonin agonist is psilocybin, psilocin, 10 baeocystin, norbaeocystin, lisurgide, LSD, dimethyltryptamine, carboxamindotryptamine, ibogaine, 3,4-methylenedioxy-methamphetamine (MDMA) or a compound that promotes a release of serotonin or a combination thereof.

3. The method of claim 2, wherein said serotonin agonist is psilocybin or psilocin 15 or a derivative thereof.

4. The method of claim 3, wherein said derivative of psilocybin or psilocin is [3-(2-Dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N-dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4- 20 hydroxy-N-methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3-(2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate or 4-hydroxy-N,N,N-trimethyltryptamine.

5. The method of claim 3, wherein the psilocybin or psilocin is present in the 25 form of an extract from a mushroom and/or truffle (sclerotium).

6. The method of claim 5, wherein said mushroom or truffle is from the genus *Psilocybe*, *Gymnopilus*, *Panaeolus*, *Copelandia*, *Hypholoma*, *Pluteus*, *Inocybe*, *Conocybe*, *Panaeolina*, *Gerronema*, *Agrocybe*, *Galerina* and/or *Mycena*. 30

7. The method of claim 6, wherein said mushroom or truffle is *P. azurescens*, *P. semilanceata*, *P. cyanescens*, *P. cubensis*, *P. subcubensis*, *P. tampanensis*, *P. mexicana*, *P. atlantis*, and/or *P. semilanceata*.

8. The method of claim 2, wherein the compound that promotes the release of 35 serotonin is 3,4-Methylenedioxymethamphetamine or a metabolite thereof.

9. The method of claim 8, wherein the metabolite is 3,4-methylenedioxyamphetamine (MDA), 4-hydroxy-3-methoxymethamphetamine (HMMA), 4-hydroxy-3-methoxyamphetamine (HMA), 3,4-dihydroxyamphetamine (DHA), 3,4-methylenedioxyphenylacetone (MDP2P), or 3,4-methylenedioxy-N-hydroxyamphetamine (MDOH).

10. The method of claim 1, wherein said serotonin receptor 2A antagonist is MDL-11,939, ketanserin, ritanserin, altanserin, acepromazine, mianserin, quetiapine, SB204741, SB206553, SB242084, LY272015, SB243213, Blonanserin, SB200646, RS102221, nefazodone, or MDL-100,907.

11. The method of claim 1, wherein the psychological disorder is depression, psychotic disorder, schizophrenia, schizophreniform disorder (acute schizophrenic episode), schizoaffective disorder; bipolar I disorder (mania, manic disorder, manic-depressive psychosis), bipolar II disorder, major depressive disorder with psychotic feature (psychotic depression), delusional disorders (paranoia), shared Psychotic Disorder (shared paranoia disorder), Brief Psychotic disorder (other and unspecified Reactive Psychosis), psychotic disorder not otherwise specified (unspecified psychosis), paranoid personality disorder, schizoid personality disorder, schizotypal personality disorder, anxiety disorder, panic disorder, panic attacks, agoraphobia, attention deficit syndrome, premenstrual dysphoric disorder, premenstrual syndrome, ADHD, ADD, anorexia nervosa, antisocial personality disorder, autism, addiction, avoidant personality disorder, bipolar disorder, bulimia nervosa, borderline personality disorder, catatone schizophrenia, chronic motor or vocal tic disorder, conversion disorder, cyclothymia, dependent personality disorder, delier, dementia, depersonalization disorder, depression, Dhat syndrome, dissociative amnesia, dissociative fugue, dissociative identity disorder, dissociative disorder, dissociative disorder, not otherwise specified, dysthymic disorder, Da Costa's syndrome, ephophobia, exhibitionism, generalized anxiety disorder, grandiose delusions, hypochondria, hoarding disorder, intermittent explosive disorder, jealousy, kleptomania, Kluver-Bucy syndrome, maternity psychosis, mental retardation, monomania, Munchhausen syndrome, misophony, narcissistic personality disorder, obsessive-compulsive disorder, oniomania, organic personality disorder, phobia, paranoid personality disorder, paranoid delusions, passive-aggressive personality, pathological gambling, pathological lying, personality disorder not otherwise defined, pervasive developmental disorder, pica, pain disorder, post encephalitic syndrome, postpartum depression, posttraumatic stress disorder, psychosis, psychotic

disorder due to substance use, pyromania, querulant delusions, ruminational disorder, schizophrenia, schizoaffective disorder, schizoid personality disorder, schizotypal personality disorder, separation anxiety, social phobia, somatisation disorder, somatic delusion, somatoform disorder, syndrome of Capgras, syndrome of Cotard, syndrome of Ganser, syndrome of Gilles de la Tourette, selective mutism, theatrical personality disorder, trichotillomania, or undifferentiated somatoform disorder.

12. A method for preventing or treating a psychological disorder, comprising the step of:
administering an agonist of serotonin receptors in combination with a serotonin receptor 2A antagonist, wherein said agonist is administered separately, sequentially or simultaneously with said antagonist.

13. The method of claim 12, wherein said agonist of serotonin receptors is an agonist of serotonin receptor 1B, serotonin receptor 4, serotonin receptor 6, or serotonin receptor 7.

14. The method of claim 13, wherein said agonist of serotonin receptor 1B is ergotamine, oxymetazoline, sumatriptan, zolmitriptan, 5-carboxamidotryptamine, CGS-12066A, CP-93,129, CP-94,253, CP-122,288, CP135,807, RU24969, vortioxetine, psilocybin, psilocin, baeocystin, norbaeocystin, lisurgide, LSD, dimethyltryptamine, or carboxamindotryptamine or combinations thereof.

15. The method of claim 13, wherein said agonist of serotonin receptor 4 is BIMU-8, Cisapride, CJ-033, ML-10302, Mosapride, Prucalopride, Renzapride, RS-67506, RS-67333, SL65.0155, Tegaserod, Zacopride, Metoclopramide, Sulpiride, psilocybin, psilocin, baeocystin, norbaeocystin, lisurgide, LSD, dimethyltryptamine, or carboxamindotryptamine or combinations thereof.

16. The method of claim 13, wherein said agonist of serotonin receptor 6 is EMD 386088, E-6801, WAY 181187, or WAY 208466.

17. The method of claim 13, wherein said agonist of serotonin receptor 7 is 5-carboxamidotryptamine, 5-methoxytryptamine, 8-OH-DPAT, aripiprazole, AS-19, E-55888, E-57431, 4-(2-diphenyl)-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-1-piperazinehexanamide, 4-[2-(methylthio)phenyl]-N-(1,2,3,4-tetrahydro-1-naphthalenyl)-1-piperazinehexanamide, LP-

211, MSD-5a, N-methylserotonin, N-1,2,3,4-Tetrahydronaphthalen-1-yl)-4-aryl-1-piperazinehexanamides, N,N-dimethyltryptamine, AGH-107, AH-494, AGH-192, psilocybin, psilocin, baeocystin, norbaeocystin, lisurgide, LSD, dimethyltryptamine, or carboxamindotryptamine or combinations thereof.

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18. The method of claim 13, wherein said serotonin agonist is a derivative of psilocybin or psilocin.

19. The method of claim 18, wherein said derivative of psilocybin or psilocin is [3-(2-dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N-dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N-methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3-(2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, or 4-hydroxy-N,N,N-trimethyltryptamine.

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20. The method of claim 18, wherein the psilocybin or psilocin is present in the form of an extract from a mushroom and/or truffle (sclerotium).

21. The method of claim 17, wherein said mushroom or truffle is from the genus *Psilocybe*, *Gymnopilus*, *Panaeolus*, *Copelandia*, *Hypholoma*, *Pluteus*, *Inocybe*, *Conocybe*, *Panaeolina*, *Gerronema*, *Agrocybe*, *Galerina* and/or *Mycena*.

22. The method of claim 21, wherein said mushroom or truffle is *P. azurescens*, *P. semilanceata*, *P. cyanescens*, *P. cubensis*, *P. subcubensis*, *P. tampanensis*, *P. mexicana*, *P. atlantis*, and/or *P. semilanceata*.

23. The method of claim 12, wherein said serotonin receptor 2A antagonist is MDL-11,939, ketanserin, ritanserin, altanserin, acepromazine, mianserin, quetiapine, SB204741, SB206553, SB242084, LY272015, SB243213, Blonanserin, SB200646, RS102221, nefazodone, or MDL-100,907.

24. The method of claim 12, wherein the psychological disorder is depression, psychotic disorder, schizophrenia, schizophreniform disorder (acute schizophrenic episode), schizoaffective disorder; bipolar I disorder (mania, manic disorder, manic-depressive psychosis), bipolar II disorder, major depressive disorder with psychotic feature (psychotic depression), delusional disorders (paranoia), shared Psychotic Disorder (shared paranoia

disorder), Brief Psychotic disorder (other and unspecified Reactive Psychosis), psychotic disorder not otherwise specified (unspecified psychosis), paranoid personality disorder, schizoid personality disorder, schizotypal personality disorder, anxiety disorder, panic disorder, panic attacks, agoraphobia, attention deficit syndrome, premenstrual dysphoric disorder, premenstrual syndrome, ADHD, ADD, anorexia nervosa, antisocial personality disorder, autism, addiction, avoidant personality disorder, bipolar disorder, bulimia nervosa, borderline personality disorder, catatone schizophrenia, chronic motor or vocal tic disorder, conversion disorder, cyclothymia, dependent personality disorder, delirium, dementia, depersonalization disorder, depression, Dhat syndrome, dissociative amnesia, dissociative fugue, dissociative identity disorder, dissociative disorder, dissociative disorder, not otherwise specified, dysthymic disorder, Da Costa's syndrome, ephophobia, exhibitionism, generalized anxiety disorder, grandiose delusions, hypochondria, hoarding disorder, intermittent explosive disorder, jealousy, kleptomania, Kluver-Bucy syndrome, maternity psychosis, mental retardation, monomania, Munchausen syndrome, misophony, narcissistic personality disorder, obsessive-compulsive disorder, oniomania, organic personality disorder, phobia, paranoid personality disorder, paranoid delusions, passive-aggressive personality, pathological gambling, pathological lying, personality disorder not otherwise defined, pervasive developmental disorder, pica, pain disorder, post encephalitic syndrome, postpartum depression, posttraumatic stress disorder, psychosis, psychotic disorder due to substance use, pyromania, querulant delusions, ruminational disorder, schizophrenia, schizoaffective disorder, schizoid personality disorder, schizotypal personality disorder, separation anxiety, social phobia, somatisation disorder, somatic delusion, somatoform disorder, syndrome of Capgras, syndrome of Cotard, syndrome of Ganser, syndrome of Gilles de la Tourette, selective mutism, theatrical personality disorder, trichotillomania, or undifferentiated somatoform disorder.