

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Serial No.: 18/675,614

Filing or 371(c) Date: May 28, 2024

Entitled: 5-METHOXY-N,N-DIMETHYLTRYPTAMINE (5-MEO-DMT) FOR TREATING DEPRESSION

Confirmation No.: 3345

Group No.:

Examiner:

**THIRD-PARTY PRE-ISSUANCE SUBMISSION**

Examiner:

The following documents, which are also identified in the Form PTO/SB/429 filed herewith, are submitted for your consideration as being of potential relevance to the examination of the present application

1. DAVIS (2018) "The epidemiology of 5-methoxy-N, N-dimethyltryptamine (5-MeO-DMT) use: Benefits, consequences, patterns of use, subjective effects, and reasons for consumption" *Journal of Pharmacology*. 32(7)779-792.
2. Int'l Pat. App. Pub. No. WO/2018/195455 "ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS" (Published October 25, 2018)
3. Int'l Pat. App. Pub. No. WO/2019/064031 "USE OF CANNABIDIOL IN COMBINATION WITH 5-HT2B RECEPTOR AGONISTS OR AMPHETAMINS IN THE TREATMENT OF EPILEPSY" (Published April 4, 2019)
4. HERMANN (2005) "Psychiatric Comorbidity in Chronic Epilepsy: Identification, Consequences, and Treatment of Major Depression" *Epilepsia*. 41(2):31-41.
5. OTT (2001) "Pharmepéna-Psychonautics: Human Intranasal, Sublingual and Oral Pharmacology of 5-Methoxy-N, N-Dimethyl-Tryptamine" *Journal of Psychoactive Drugs*. 33(4)403-307.
6. U.S. Pat. App. Pub. No. US/2010/0166889 "METHOD OF TREATING DEPRESSIVE DISORDERS" (Published July 1, 2010)
7. EROWID (2003) "Cranial Chomping 5-MeO-DMT" Retrieved June 7, 2007.  
<https://web.archive.org/web/20070607053411/https://erowid.org/experiences/exp.php?ID=26469>
8. MAJIC (2015) "Peak experiences and the afterglow phenomenon: When and how do therapeutic effects of hallucinogens depend on psychedelic experiences?" *Journal of Psychopharmacology*. 29(3)241-253.
9. EROWID (1999) "5-MeO-DMT Dosage" Retrieved April 7, 2000.  
[https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo\\_dmt/5meo\\_dmt\\_dose.shtml](https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml)
10. HERRMANN (1998) "The Sunnybrook Stroke Study: a prospective study of depressive symptoms and functional outcome" *Stroke*. 29(3):618-624.
11. MOHEBBI (2018) "Patient centric measures for a patient centric era: Agreement and convergent between ratings on The Patient Global Impression of Improvement (PGI-I) scale and the Clinical Global Impressions – Improvement (CGI-S) scale in bipolar and major depressive disorder" *European Psychiatry*. 53:17-22.
12. SANTOS (2018) "Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up" *Archives of Clinical Psychiatry*. 45(1):22-24.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” *International Journal of Neuropsychopharmacology*. 17(8):1269–1282.
14. MULLER (2003) “Differentiating moderate and severe depression using the Montgomery–Asberg depression rating scale (MADRS)” *Journal of Affective Disorders*. 77:255-260.
15. CARHART-HARRIS (2018) “Psilocybin with psychological support for treatment-resistant depression: six-month follow-up” *Psychopharmacology (Berl)*. 235(2):399-408.
16. OLIN (2012) “Mortality and Suicide Risk in Treatment-Resistant Depression: An Observational Study of the Long-Term Impact of Intervention” *PLOS One*. 7(10):e48002
17. BARRETT (2015) “Validation of the revised Mystical Experience Questionnaire in experimental sessions with psilocybin” *Journal of Psychopharmacology*. 29(11):1182–1190.
18. STUDERUS (2010) “Psychometric Evaluation of the Altered States of Consciousness Rating Scale (OAV)” *PLOS ONE*. 25(8):1-19.
19. SCHIFANO (2019) “New Psychoactive Substances (NPS), Psychedelic Experiences and Dissociation: Clinical and Clinical Pharmacological Issues” *Current Addiction Reports*. 6:140-152
20. BARRETT (2017) “The Challenging Experience Questionnaire: Characterization of challenging experiences with psilocybin mushrooms” *Journal of Psychopharmacology*. 30(12):1279–1295.
21. SCHENBERG (2017) “Translation and cultural adaptation of the States of Consciousness Questionnaire (SOCQ) and statistical validation of the Mystical Experience Questionnaire (MEQ30) in Brazilian Portuguese” *Archives of Clinical Psychiatry*. 44(1):1–5.

Attached hereto is a claim chart providing a concise description of the relevance of each reference in the document list of the elements of the presently pending claims.

U.S.S.N. 18/675,614 Pending Claims	References
<p>1. A method of treating a patient who is diagnosed with major depressive disorder by a licensed professional in accordance with accepted medical practice, the method comprising administering to the patient who is diagnosed with major depressive disorder by a licensed professional in accordance with accepted medical practice a therapeutically effective amount of 5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) or a pharmaceutically acceptable salt thereof.</p>	<p>1. DAVIS (2018) “The epidemiology of 5-methoxy-N, N-dimethyltryptamine (5-MeO-DMT) use: Benefits, consequences, patterns of use, subjective effects, and reasons for consumption” <i>Journal of Pharmacology</i>. 32(7)779-792.</p> <p>From <b>page 779</b> “Furthermore, of those who reported being diagnosed with psychiatric disorders, the majority reported improvements in symptoms <b>following 5-MeO-DMT use, including improvements related to</b> post-traumatic stress disorder (79%), <b>depression (77%)</b>, anxiety (69%), and alcoholism (66%) or drug use disorder (60%).</p> <p>From <b>page 780</b> “There is also anecdotal and empirical evidence that some people use <b>5-MeO-DMT for the purpose of treating psychiatric conditions, including symptoms related to depression</b>, anxiety, post-traumatic stress disorder, and problematic substance use, either by self-administration (<i>Psychedelic Times</i>, 2016) or through <b>visiting treatment facilities that provides 5-MeO-DMT</b> in locations where the substance is unregulated (Lancelotta, 2017; Thoricatha, 2015).”</p> <p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1-(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,10-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1-yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine; a compound of formula (I) formula (II) formula (III) <b>or a pharmaceutically acceptable salt thereof.</b>”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-119, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or</p>

	dysthymia.”
<p>2. The method according to claim 1, wherein the disorder is diagnosed in accordance with the Diagnostic and Statistical Manual of Mental Disorders - Fifth Edition (DSM-5) published by the American Psychiatric Association.</p>	<p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>page 13 paragraph 30</b> “<b>Diagnostic guidance for psychological disorders</b> can be found, for example, in the ICD-10 (The ICD-10 Classification of Mental and Behavioral Disorders: Diagnostic Criteria for Research, Geneva: World Health Organization, 1993) and the DSM-V (American Psychiatric Association. <b>Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V)</b> Arlington, VA.; <b>American Psychiatric Association</b>, 2013).”</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1-yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine; a compound of formula (I) formula (II) formula (III) <b>or a pharmaceutically acceptable salt thereof.</b>”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>
<p>3. The method according to claim 1, wherein the patient suffers from moderate or severe major depressive disorder as indicated by a Montgomery-Asberg Depression Rating Scale (MADRS) score of 20 or more or by a 17-item</p>	<p>10. HERRMANN (1998) “The Sunnybrook Stroke Study: a prospective study of depressive symptoms and functional outcome” Stroke. 29(3):618-624.</p> <p>From <b>page 620</b> “The objective, <b>observer-rated MADRS<sup>18</sup> is a 20-item scale that measures the severity of depressive symptoms</b>. While <b>the scale has been shown to correlate well with the Hamilton Depression Rating Scale<sup>19</sup></b>, its lack of emphasis on physical symptoms has led some investigators to suggest that it is a more valid measure of depression in depressed, elderly patients compared with the Hamilton Depression Rating</p>

<p>Hamilton Depression Rating Scale (HAM-D) score of 17 or more.</p>	<p>Scale.<sup>20</sup> Cutoff <b>scores for the MADRS</b> were as follows: 0 to 6 (normal), 7 to 19 (mild), <b>20 to 34 (moderate), and &gt;34 (severe).</b><sup>21</sup>”</p> <p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1-(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2’S,4’S)-(+)-9,10-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1-yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-119, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>
<p>4. The method according to claim 3, wherein the patient suffers from severe major depressive disorder as indicated by a MADRS score of 35 or more or by a HAM-D score of 25 or more.</p>	<p>10. HERRMANN (1998) “The Sunnybrook Stroke Study: a prospective study of depressive symptoms and functional outcome” Stroke. 29(3):618-624.</p> <p>From <b>page 620</b> “The objective, <b>observer-rated MADRS<sup>18</sup> is a 20-item scale that measures the severity of depressive symptoms. While the scale has been shown to correlate well with the Hamilton Depression Rating Scale,</b><sup>19</sup> its lack of emphasis on physical symptoms has led some investigators to suggest that it is a more valid measure of depression in depressed, elderly patients compared with the Hamilton Depression Rating Scale.<sup>20</sup> Cutoff <b>scores for the MADRS</b> were as follows: 0 to 6 (normal), 7 to 19 (mild), <b>20 to 34 (moderate), and &gt;34 (severe).</b><sup>21</sup>”</p> <p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p>

	<p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT2A receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (<math>\pm</math>)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>
<p>5. The method according to claim 1, wherein the patient is diagnosed with a treatment-resistant form of major depressive disorder.</p>	<p>2. Int'l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT2A receptor agonist is selected from lysergic acid diethylamide (LSD), <b>psilocybin</b>, DOI (<math>\pm</math>)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>

19. SCHIFANO (2019) “New Psychoactive Substances (NPS), Psychedelic Experiences and Dissociation: Clinical and Clinical Pharmacological Issues” Current Addiction Reports. 6:140-152

From **page 147** “**Psychedelics** and dissociatives are being studied as well as potential treatment for certain psychiatric conditions, **mainly treatment-resistant depression**, anxiety and addiction disorders [150, 151].”

From **page 142** “Since DMT is inactive after oral administration, unless combined with Monoamine Oxidase Inhibitors (MAOIs, e.g. like in **ayahuasca**), it is usually injected, snorted, or smoked. There are small numbers of confirmed postmortem toxicology reports on tryptamines...**Tryptamines** in Nature Some tryptamines are naturally found, i.e. in Delosperma species plants (dimethyltryptamine, DMT; **5-MeO-DMT/5-methoxy-n,n-dimethyltryptamine**) and in amphibians (bufotenin), whilst 5-hydroxy-indolethylamines are common constituents of venoms of the genre Hyla, Leptodactylus, Rana and Bufo alvarius [5, 25]. DMT has also been found in other plant sources, e.g. Phalaris arundinacea and Mimosa hostilis [28]”

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From **page 1269** “**5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT)** is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** “We recently reported that administration of a single oral dose of **ayahuasca** (dose: 2.2 mL/kg; alkaloid content in the sample: 0.8 mg/mL DMT, 0.21 mg/mL harmine, no harmaline was detected, and THH was not analyzed due to a lack of analytical requirements) in an open-label trial to 17 patients with **treatment-resistant major depressive disorder (MDD)** was associated with significant decreases in depression symptoms assessed with the Hamilton Rating Scale for Depression (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) from 80 minutes to day 21.”

	<p>15. CARHART-HARRIS (2018) “Psilocybin with psychological support for treatment-resistant depression: six-month follow-up” <i>Psychopharmacology (Berl)</i>. 235(2):399-408.</p> <p>From <b>p. 399</b> “Objectives Here, we report on safety and efficacy outcomes for up to 6 months in an open-label trial of <b>psilocybin for treatment resistant depression...Psilocybin represents a promising paradigm for unresponsive depression</b> that warrants further research in double-blind randomised control trials.”</p> <p>16. OLIN (2012) “Mortality and Suicide Risk in Treatment-Resistant Depression: An Observational Study of the Long-Term Impact of Intervention” <i>PLOS One</i>. 7(10):e48002</p> <p>From <b>page 1</b> “<b>Major depressive disorder (MDD)</b> is very common, affecting about 121 million people worldwide [1]. In the United States, the lifetime prevalence of MDD is approximately 16% and the 12- month prevalence is approximately 7% [2]. <b>Treatment-resistant depression (TRD), an often more severe and/or more chronic subset of MDD,</b> is characterized by failure to respond to multiple therapeutic interventions, including non-pharmacologic treatments [3]. <b>The STAR*D trial [4], a NIMH funded, large scale prospective study of over 3000 outpatients with nonpsychotic MDD demonstrated that up to 35% of patients could be considered to have TRD.</b>”</p>
<p>6. The method according to claim 1, wherein the patient suffers in addition from suicidal ideation.</p>	<p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 41</b> “The method of claim 39 or 40, wherein the depressive disorder is associated with one or more prodromal symptoms selected from the group consisting of depressed mood, decreased appetite, weight loss, increased appetite, weight gain, initial insomnia, middle insomnia, early waking, hypersomnia, decreased energy, decreased interest or pleasure, self-blame, decreased concentration, indecision, <b>suicidality</b>, psychomotor agitation, psychomotor retardation, crying more frequently, inability to cry, hopelessness, worrying/brooding, decreased self-esteem, irritability, dependency, self-pity, somatic complaints, decreased effectiveness, helplessness, and decreased initiation of voluntary responses.”</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -</p>

	<p>yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>
<p>7. The method according to claim 6, wherein the patient suffers from suicidal ideation with intent to act.</p>	<p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 41</b> “The method of claim 39 or 40, wherein the depressive disorder is associated with one or more prodromal symptoms selected from the group consisting of depressed mood, decreased appetite, weight loss, increased appetite, weight gain, initial insomnia, middle insomnia, early waking, hypersomnia, decreased energy, decreased interest or pleasure, self-blame, decreased concentration, indecision, <b>suicidality</b>, psychomotor agitation, psychomotor retardation, crying more frequently, inability to cry, hopelessness, worrying/brooding, decreased self-esteem, irritability, dependency, self-pity, somatic complaints, decreased effectiveness, helplessness, and decreased initiation of voluntary responses.”</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p>

	<p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p> <p>16. OLIN (2012) “Mortality and Suicide Risk in Treatment-Resistant Depression: An Observational Study of the Long-Term Impact of Intervention” PLOS One. 7(10):e48002</p> <p>From <b>page 2</b> “The study is an observational, open-label, longitudinal, multicenter (45 US centers) registry of <b>500 patients with TRD treated with VNS+TAU</b> and 300 patients with TRD treated with TAU. Patients are followed for 60 months, until withdrawal from the study, death or study completion.”</p> <p>From <b>page 5</b> “Further, the elevated rate of previous suicide attempts for the VNS+TAU group (2.1 vs. 1.2) is confirmed by the increased percentage of VNS+TAU <b>patients who exhibit suicidal ideations at baseline as assessed by the Assessment of Suicidality (“Has the patient made a suicidal gesture or attempt since the last visit?” Yes or No) (8.5% vs. 1.5%).</b>”</p>
<p>8. The method according to claim 1, wherein the patient is at imminent risk for suicide.</p>	<p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>claim 41</b> “The method of claim 39 or 40, wherein the depressive disorder is associated with one or more prodromal symptoms selected from the group consisting of depressed mood, decreased appetite, weight loss, increased appetite, weight gain, initial insomnia, middle insomnia, early waking, hypersomnia, decreased energy, decreased interest or pleasure, self-blame, decreased concentration, indecision, <b>suicidality</b>, psychomotor agitation, psychomotor retardation, crying more frequently, inability to cry, hopelessness, worrying/brooding, decreased self-esteem, irritability, dependency, self-pity, somatic complaints, decreased effectiveness, helplessness, and decreased initiation of voluntary responses.”</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT2A receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (±)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2’S,4’S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine;”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the</p>

	<p>subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p> <p>16. OLIN (2012) “Mortality and Suicide Risk in Treatment-Resistant Depression: An Observational Study of the Long-Term Impact of Intervention” PLOS One. 7(10):e48002</p> <p>From <b>page 2</b> “The study is an observational, open-label, longitudinal, multicenter (45 US centers) registry of <b>500 patients with TRD treated with VNS+TAU</b> and 300 patients with TRD treated with TAU. Patients are followed for 60 months, until withdrawal from the study, death or study completion.”</p> <p>From <b>page 5</b> “Further, the elevated rate of previous suicide attempts for the VNS+TAU group (2.1 vs. 1.2) is confirmed by the increased percentage of VNS+TAU <b>patients who exhibit suicidal ideations at baseline as assessed by the Assessment of Suicidality (“Has the patient made a suicidal gesture or attempt since the last visit?” Yes or No) (8.5% vs. 1.5%).</b>”</p>
<p>9. The method according to claim 1, wherein the 5-MeO-DMT or salt thereof is administered at a dose or in a dosage regimen that causes the patient to experience a peak psychedelic experience.</p>	<p>8. MAJIC (2015) “Peak experiences and the afterglow phenomenon: When and how do therapeutic effects of hallucinogens depend on psychedelic experiences?” Journal of Psychopharmacology. 29(3)241-253.</p> <p>From <b>page 243</b> “Pahnke referred to this as the psychedelic peak experience. He described nine characteristics that <b>psychedelic peak experiences</b> share with non-drug-related <b>mystical experiences</b> (Pahnke, 1966, 1969a): <b>(1) a sense of unity; (2) the transcendence of time and space; (3) a deeply felt positive mood; (4) a sense of sacredness; (5) the noetic quality; (6) paradoxicality; (7) alleged ineffability; (8) transiency; and (9) persisting positive changes in different domains, including attitudes and behavior towards the self, others, life and the experience itself.</b>”</p> <p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p>

From **claim 90** “The method of claim 89, wherein the 5-HT<sub>2A</sub> receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI ( $\pm$ )-1-(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1-(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,10-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1-yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); **5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)**; ibogaine;”

From **claim 120** “The method of any one of claims 54-119, wherein the subject is being screened for **treatment to improve the mental well-being** of a subject.”

From **claim 121** “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, **treatment of depression**, or treating of a compulsive behavior.”

From **page 15** “As used herein, “**mystical experience**” or “ME” refers to an **altered state of consciousness** in an individual characterized by at least one of the following key dimensions set forth by Stace (Mysticism and Philosophy, Lippincott, Philadelphia, PA, 2006): **(1) unity, or the sense that all is one; (2) transcendence of time and space; (3) deeply felt positive mood; (4) sense of sacredness, including awe, humility, and reverence; (5) noetic quality, or a feeling of insight with tremendous force of certainty; and (6) alleged ineffability, or an experience that is non-verbal or impossible to describe.**”

10. The method according to claim 1, wherein a dosage of about 4 mg to about 20 mg 5-MeO-DMT is administered, or wherein equimolar amounts of the pharmaceutically acceptable salt are administered instead of 5-MeO-DMT.

9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000. [https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo\\_dmt/5meo\\_dmt\\_dose.shtml](https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml)

5-MeO-DMT Dosages  
by Erowid

5-MeO-DMT is a short acting tryptamine very similar in nature to DMT. It is generally found as very small white crystals (like salt) and is generally smoked. Be careful with dosages...people react very differently to different doses. Some individuals have world-shattering effects with less than 5 mg. Descriptions of its effects range from "bliss" to "chemical terror".

Smoked 5-MeO-DMT Dosages	
Threshold	1-2 mg
Light	2-5 mg
Common	5-10 mg
Strong	10-20 mg

Onset : 0-30 seconds  
Peak : ~1-15 minutes  
Duration : ~30 minutes  
Additional After Effects : ~1 hr

Every individual reacts differently to every chemical.  
Know your Body - Know your Mind - Know your Substance - Know your Source.

3. Int'l Pat. App. Pub. No. WO/2019/064031 “USE OF CANNABIDIOL

	<p>IN COMBINATION WITH 5-HT2B RECEPTOR AGONISTS OR AMPHETAMINS IN THE <b>TREATMENT OF EPILEPSY</b>” (Published April 4, 2019)</p> <p>From <b>claim 3</b> “CBD in combination with a 5-HT2B receptor agonist, an amphetamine or an amphetamine derivative for use according to claim 1 or claim 2, wherein the 5-HT2B receptor agonist, amphetamine or amphetamine derivative is one or more of: guanfacine; 3,4-Methylenedioxymethamphetamine (MDMA); Methylenedioxyamphetamine (MDA); 2,5-Dimethoxy-4-ethoxyamphetamine (MEM); pergolide; cabergoline; norfenfluramine; fenfluramine; chlorphentermine; aminorex; meta-chlorophenylpiperazine (mCPP); bromo-dragonfly; N,N-Dimethyltryptamine (DMT); <b>5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT)</b>; lysergic acid diethylamide (LSD-25); psilocin; amphetamine; methamphetamine; ephedrine; cathinone; phentermine; mephentermine; bupropion; methoxyphenamine; selegiline; amfepramone; n-fenfluramine; pyrovalerone; MDMA (ecstasy) and DOM (STP).”</p> <p>From <b>claim 18</b> “Cannabidiol (CBD) in combination with a 5-HT2B receptor agonist, an amphetamine or an amphetamine derivative for use according to any of the preceding claims, wherein the <b>dose of a 5-HT2B receptor agonist</b>, amphetamine or amphetamine derivative is below <b>0.01 and 1 mg/kg/day</b>.”</p> <p>4. HERMANN (2005) “Psychiatric Comorbidity in Chronic Epilepsy: Identification, Consequences, and Treatment of Major Depression” <i>Epilepsia</i>. 41(2)31-41.</p> <p>From <b>page 31</b> “The issue of <b>psychiatric comorbidity in epilepsy</b> is reviewed with the aim of identifying a clinical and research agenda that will advance understanding of at least one important psychiatric condition associated with epilepsy—<b>namely, major depression</b>.”</p>
<p>11. The method according to claim 1, wherein a dosage of about 6 mg; or of about 12 mg; or of about 18 mg is administered, or wherein equimolar amounts of the pharmaceutically acceptable salt are administered instead of 5-MeO-DMT.</p>	<p>9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000. <a href="https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml">https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml</a></p>

https://erowid.org/chemicals/5meo\_dmt/5meo\_dmt\_dose.shtml

773 captures  
17 Aug 2009 - 23 May 2022

APR 07 2009  
MAY 2001

THE VAULTS OF EROWID  
PLANTS & DRUGS HIND & SPIRIT FREEDOM & LAW ARTS & SCIENCES

SEARCH ABOUT ORDER & POST DONATE

### 5-MeO-DMT Dosages by Erowid

5-MeO-DMT is a short acting tryptamine very similar in nature to DMT. It is generally found as very small white crystals (like salt) and is generally smoked. Be careful with dosages...people react very differently to different doses. Some individuals have word-shattering effects with less than 5 mg. Descriptions of its effects range from "bliss" to "chemical terror".

Smoked 5-MeO-DMT Dosages	
Threshold	1-2 mg
Light	2-5 mg
Common	5-10 mg
Strong	10-20 mg

Onset : 0-30 seconds  
Peak : ~1-15 minutes  
Duration : ~30 minutes  
Additional After Effects : ~1 hr

Every individual reacts differently to every chemical.

Know your Body - Know your Mind - Know your Substance - Know your Source.

3. Int'l Pat. App. Pub. No. WO/2019/064031 "USE OF CANNABIDIOL IN COMBINATION WITH 5-HT2B RECEPTOR AGONISTS OR AMPHETAMINS IN THE **TREATMENT OF EPILEPSY**" (Published April 4, 2019)

From **claim 3** "CBD in combination with a 5-HT2B receptor agonist, an amphetamine or an amphetamine derivative for use according to claim 1 or claim 2, wherein the 5-HT2B receptor agonist, amphetamine or amphetamine derivative is one or more of: guanfacine; 3,4-Methylenedioxymethamphetamine (MDMA); Methylenedioxyamphetamine (MDA); 2,5-Dimethoxy-4-ethoxyamphetamine (MEM); pergolide; cabergoline; norfenfluramine; fenfluramine; chlorphentermine; aminorex; meta-chlorophenylpiperazine (mCPP); bromo-dragonfly; N,N-Dimethyltryptamine (DMT); **5-methoxy-N,N-dimethyltryptamine (5-MeO-DMT)**; lysergic acid diethylamide (LSD-25); psilocin; amphetamine; methamphetamine; ephedrine; cathinone; phentermine; mephentermine; bupropion; methoxyphenamine; selegiline; amfepramone; n-fenfluramine; pyrovalerone; MDMA (ecstasy) and DOM (STP)."

From **claim 18** "Cannabidiol (CBD) in combination with a 5-HT2B receptor agonist, an amphetamine or an amphetamine derivative for use according to any of the preceding claims, wherein the **dose of a 5-HT2B receptor agonist**, amphetamine or amphetamine derivative is below **0.01 and 1 mg/kg/day**."

4. HERMANN (2005) "Psychiatric Comorbidity in Chronic Epilepsy: Identification, Consequences, and Treatment of Major Depression" *Epilepsia*. 41(2)31-41.

From **page 31** "The issue of **psychiatric comorbidity in epilepsy** is

	<p>reviewed with the aim of identifying a clinical and research agenda that will advance understanding of at least one important psychiatric condition associated with epilepsy—<b>namely, major depression.</b>”</p>										
<p>12. The method according to claim 1, wherein the 5-MeO-DMT is administered in a dosage from about 2 mg to about 8 mg for a first administration, and then increased, unless the patient has already experienced a peak psychedelic experience, to a dosage from about 14 mg to about 20 mg for a third administration, or wherein equimolar amounts of the pharmaceutically acceptable salt are administered instead of 5-MeO-DMT.</p>	<p>1. DAVIS (2018) “The epidemiology of 5-methoxy-N, N-dimethyltryptamine (5-MeO-DMT) use: Benefits, consequences, patterns of use, subjective effects, and reasons for consumption” <i>Journal of Pharmacology</i>. 32(7)779-792.</p> <p>From <b>page 7</b> “most respondents (61%) reported that they never re-dosed immediately after taking <b>5-MeO-DMT</b>, although approximately one-quarter (<b>28%</b>) <b>reported sometimes re-dosing</b>, and a notably small proportion (<b>11%</b>) <b>reporting that they frequently or always re-dosed.</b>”</p> <p>From <b>page 779</b> “Furthermore, of those who reported being diagnosed with psychiatric disorders, the majority reported improvements in symptoms <b>following 5-MeO-DMT use, including improvements related to</b> post-traumatic stress disorder (79%), <b>depression (77%)</b>, anxiety (69%), and alcoholism (66%) or drug use disorder (60%).</p> <p>From <b>page 780</b> “There is also anecdotal and empirical evidence that some people use <b>5-MeO-DMT for the purpose of treating psychiatric conditions, including symptoms related to depression</b>, anxiety, post-traumatic stress disorder, and problematic substance use, either by self-administration (Psychedelic Times, 2016) or through <b>visiting treatment facilities that provides 5-MeO-DMT</b> in locations where the substance is unregulated (Lancelotta, 2017; Thoricatha, 2015).”</p> <p>7. EROWID (2003) “Cranial Chomping 5-MeO-DMT” Retrieved June 7, 2007.  <a href="https://web.archive.org/web/20070607053411/https://erowid.org/experiences/exp.php?ID=26469">https://web.archive.org/web/20070607053411/https://erowid.org/experiences/exp.php?ID=26469</a></p> <table border="1" data-bbox="527 1423 1356 1558"> <tr> <td>DOSE : T+ 0:00</td> <td>6 mg</td> <td>smoked</td> <td><a href="#">5-MeO-DMT</a></td> <td>(powder / crystals)</td> </tr> <tr> <td>T+ 0:30</td> <td>10 mg</td> <td>smoked</td> <td><a href="#">5-MeO-DMT</a></td> <td>(powder / crystals)</td> </tr> </table> <p>From webpage “<b>One 6 Milligram dose</b> was freebased off of aluminum foil and inhaled via a funnel. This produced a very surreal feeling, a lot of shakiness. <b>I was not satisfied...and went to relieve my bowels while a 10 milligram dose</b> was being prepared by my friend, B, (...kudos to the <b>5-MeO-DMT</b>” ... I can only use the word happening because it was only happening, I was not feeling it. And then <b>I ceased to exist. I experienced 'The Void'</b> for about 10 minutes... A brought me some cold fluid to try and lower my body temperature and for a brief second I felt that he had some</p>	DOSE : T+ 0:00	6 mg	smoked	<a href="#">5-MeO-DMT</a>	(powder / crystals)	T+ 0:30	10 mg	smoked	<a href="#">5-MeO-DMT</a>	(powder / crystals)
DOSE : T+ 0:00	6 mg	smoked	<a href="#">5-MeO-DMT</a>	(powder / crystals)							
T+ 0:30	10 mg	smoked	<a href="#">5-MeO-DMT</a>	(powder / crystals)							

divine aura, supported by my actually calling him god.”

8. MAJIC (2015) “Peak experiences and the afterglow phenomenon: When and how do therapeutic effects of hallucinogens depend on psychedelic experiences?” Journal of Psychopharmacology. 29(3)241-253.

From page 243 “Pahnke referred to this as the psychedelic peak experience. He described nine characteristics that **psychedelic peak experiences** share with non-drug-related **mystical experiences** (Pahnke, 1966, 1969a): (1) a sense of unity; (2) **and the transcendence of time space**; (3) a deeply felt positive mood; (4) **a sense of sacredness**; (5) the noetic quality; (6) paradoxicality; (7) alleged ineffability; (8) **transiency**; and (9) persisting positive changes in different domains, including attitudes and behavior towards the self, others, life and the experience itself.”

9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000. [https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo\\_dmt/5meo\\_dmt\\_dose.shtml](https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml)

5-MeO-DMT Dosages  
by Erowid

5-MeO-DMT is a short acting tryptamine very similar in nature to DMT. It is generally found as very small white crystals (like salt) and is generally smoked. Be careful with dosages... people react very differently to different doses. Some individuals have world-shattering effects with less than 5 mg. Descriptions of its effects range from "bliss" to "chemical terror".

Smoked 5-MeO-DMT Dosages	
Threshold	1-2 mg
Light	2-5 mg
Common	5-10 mg
Strong	10-20 mg

Onset : 0-30 seconds  
Peak : ~1-15 minutes  
Duration : ~30 minutes  
Additional After Effects : ~1 hr

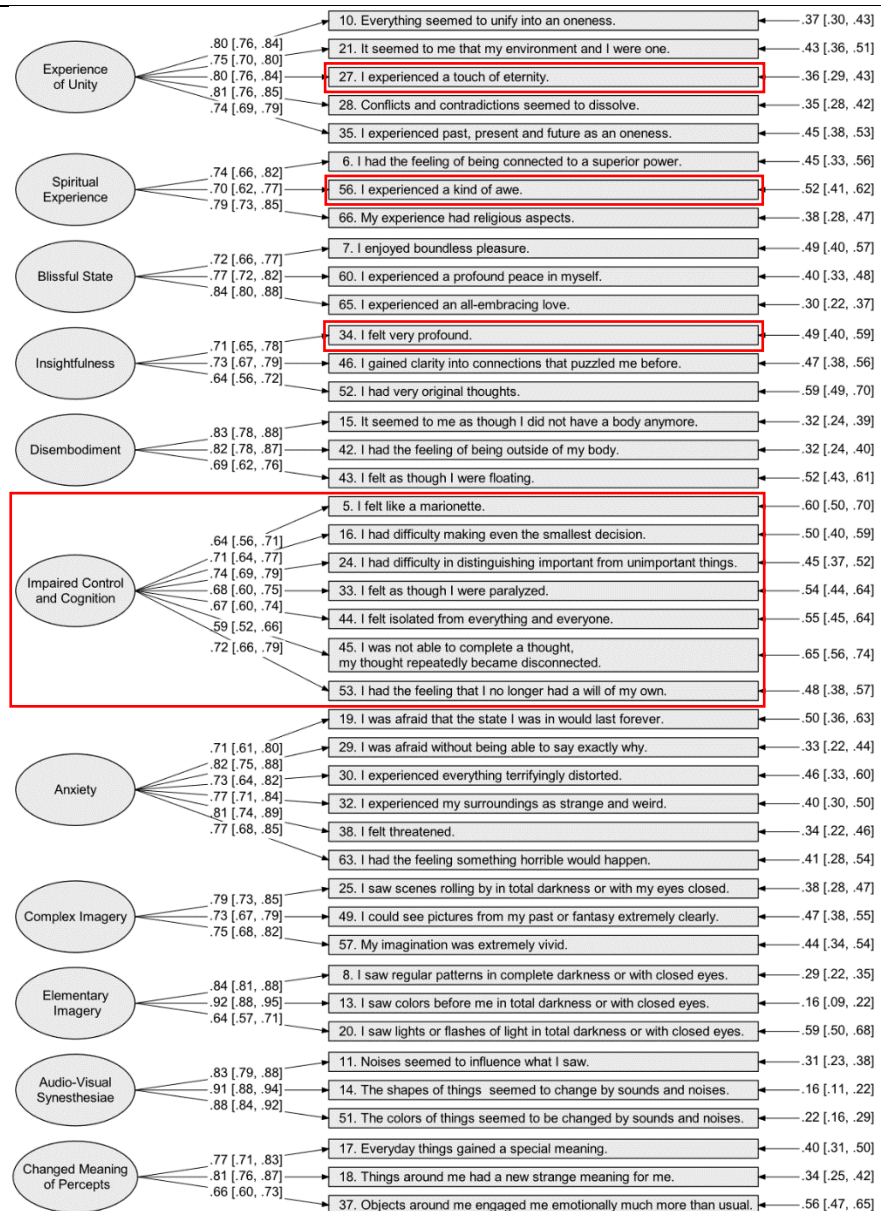
Every individual reacts differently to every chemical.  
Know your Body - Know your Mind - Know your Substance - Know your Source.

13. The method according to claim 9, wherein the occurrence of a peak psychedelic experience is identified through achievement of at least 60% of the maximum possible score in each of the four subscales (mystical, positive mood, transcendence of time

2. Int'l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)

From page 38 “Although this model predicted strength of ME as measured on a continuum, ME is often measured as complete or less than complete using threshold scores. Barrett et al. (Journal of Psychopharmacology 20<sup>^</sup>, 29:1 182-1 190), for example, used **60% on all of the subscales as the threshold for a complete ME** in their work. Because the 4-point scale used in our study allowed for far less variability in scores when compared with the 1 0-point scale in the **MEQ30**, ME was dichotomized at the 50% point such that those individuals reaching >2.5 (of the maximum possible mean

<p>and space, and ineffability) of the 30-item revised Mystical Experience Questionnaire (MEQ30) or is identified through achievement of at least 60% of the maximum possible score of the Oceanic Boundlessness (OBN) dimension of the Altered States of Consciousness (ASC) questionnaire or is identified through achievement of a Peak Psychedelic Experience Questionnaire (PPEQ) Total Score of at least 75.</p>	<p>of 4) on all four subscales were identified as having had a complete ME.”</p> <p>17. BARRETT (2015) “Validation of the revised Mystical Experience Questionnaire in experimental sessions with psilocybin” <i>Journal of Psychopharmacology</i>. 29(11):1182–1190.</p> <p>From <b>page 1189</b> “Observations on the <b>MEQ30</b> that had a score <math>\geq 60\%</math> of the maximum possible score on each of the four subscales of the <b>MEQ30</b> were considered a “complete mystical experience.””</p>
<p>14. The method according to claim 13, wherein the occurrence of a peak psychedelic experience is identified through achievement of a Peak Psychedelic Experience Questionnaire (PPEQ) Total Score of at least 75.</p>	<p><i>As defined in U.S.S.N. 18/675,614 paragraph [0733]: “the <b>PPEQ</b> has been developed by the inventor as an improved alternative to the oceanic boundlessness dimension of the ASC and the MEQ30 to allow a simpler and quicker assessment of the intensity of a psychedelic experience. The PPEQ is comprised of three questions, all to be scored from 0 to 100 by marking a Visual Analogue Scale between 0 and 100 mm: 1. How intense was the experience? 2. To what extent did you lose control? 3. How profound (i.e., deep and significant) was the experience?”</i></p> <p>18. STUDERUS (2010) “Psychometric Evaluation of the Altered States of Consciousness Rating Scale (OAV)” <i>PLOS ONE</i>. 25(8):1-19.</p> <p>From <b>page 1</b> “The OAV questionnaire has been developed to integrate research on <b>altered states of consciousness (ASC)</b>.”</p> <p>From <b>page 9</b></p>



21. SCHENBERG (2017) “Translation and cultural adaptation of the States of Consciousness Questionnaire (SOCQ) and statistical validation of the Mystical Experience Questionnaire (MEQ30) in Brazilian Portuguese” Archives of Clinical Psychiatry. 44(1):1–5.

From page 4

**Table 3.** Factors and items and respective factor loads of the confirmatory factor analysis of the Brazilian Portuguese version of the 30-item Mystical Experience Questionnaire in 1504 subjects, Jan-Feb 2015

Factor/Item	Load
<b>Factor 1: Mystical</b>	
<i>Internal Unity</i>	
35. Freedom from the limitations of your personal self and feeling a unity or bond with what was felt to be greater than your personal self.	0.85
41. Experience of pure being and pure awareness (beyond the world of sense impressions).	0.83
54. Experience of oneness in relation to an "inner world" within.	0.86
77. Experience of the fusion of your personal self into a larger whole.	0.81
83. Experience of unity with ultimate reality.	0.87
12. Feeling that you experienced eternity or infinity.	0.81
<i>External Unity</i>	
14. Experience of oneness or unity with objects and/or persons perceived in your surroundings.	0.79
47. Experience of the insight that "all is One".	0.86
74. Awareness of the life or living presence in all things.	0.85
<i>Noetic Quality</i>	
9. Gain of insightful knowledge experienced at an intuitive level.	0.72
22. Certainty of encounter with ultimate reality	0.85
69. You are convinced now, as you look back on your experience, that in it you encountered ultimate reality	0.81
<i>Sacredness</i>	
36. Sense of being at a spiritual height.	0.85
55. Sense of reverence.	0.80
73. Feeling that you experienced something profoundly sacred and holy.	0.87
<b>Factor 2: Positive Mood</b>	
5. Experience of amazement.	0.88
18. Feelings of tenderness and gentleness	0.66
30. Feelings of peace and tranquility.	0.73
43. Experience of ecstasy	0.85
80. Sense of awe or awesomeness.	0.88
87. Feelings of joy.	0.90
<b>Factor 3: Transcendence of Time and Space</b>	
2. Loss of your usual sense of time.	0.71
15. Loss of your usual sense of space.	0.73
29. Loss of usual awareness of where you were.	0.46
34. Sense of being "outside of" time, beyond past and future.	0.74
48. Being in a realm with no space boundaries.	0.80
65. Experience of timelessness.	0.83
<b>Factor 4: Ineffability</b>	
6. Sense that the experience cannot be described adequately in words.	0.87
23. Feeling that you could not do justice to your experience by describing it in words.	0.95
86. Feeling that it would be difficult to communicate your own experience to others who have not had similar experiences.	0.79

22. BARRETT (2017) "The Challenging Experience Questionnaire: Characterization of challenging experiences with psilocybin mushrooms" Journal of Psychopharmacology. 30(12):1279–1295.

From page 20

### Appendix 1: The Challenging Experience Questionnaire

Instructions: Looking back on the entirety of your session, please rate the degree to which at any time during that session you experienced the following phenomena. Answer each question according to your feelings, thoughts, and experiences at the time of the session. In making each of your ratings, use the following scale:

**0 – none; not at all**

**1 – so slight cannot decide**

**2 – slight**

**3 – moderate**

**4 – strong**

**5 – extreme (more than ever before in my life)**

- \_\_\_\_\_ 1. Isolation and loneliness
- \_\_\_\_\_ 2. Sadness
- \_\_\_\_\_ 3. Feeling my heart beating
- \_\_\_\_\_ 4. I had the feeling something horrible would happen
- \_\_\_\_\_ 5. Feeling my body shake/tremble
- \_\_\_\_\_ 6. Feelings of grief
- \_\_\_\_\_ 7. Experience of fear
- 8. Fear that I might lose my mind or go insane
- \_\_\_\_\_ 9. I felt like crying
- \_\_\_\_\_ 10. Feeling of isolation from people and things
- \_\_\_\_\_ 11. Feelings of despair
- \_\_\_\_\_ 12. I had the feeling that people were plotting against me
- \_\_\_\_\_ 13. I was afraid that the state I was in would last forever
- \_\_\_\_\_ 14. Anxiousness
- \_\_\_\_\_ 15. I felt shaky inside

*J Psychopharmacol.* Author manuscript; available in PMC 2017 December 01.

### From page 21

- 16. I had the profound experience of my own death
- \_\_\_\_\_ 17. I felt my heart beating irregularly or skipping beats
- \_\_\_\_\_ 18. Pressure or weight in my chest or abdomen
- 19. I experienced a decreased sense of sanity
- 20. I felt as if I was dead or dying
- \_\_\_\_\_ 21. Panic
- \_\_\_\_\_ 22. Experience of antagonism toward people around me
- \_\_\_\_\_ 23. Despair
- \_\_\_\_\_ 24. I felt isolated from everything and everyone
- \_\_\_\_\_ 25. Emotional and/or physical suffering
- \_\_\_\_\_ 26. I felt frightened

15. The method according to claim 1,

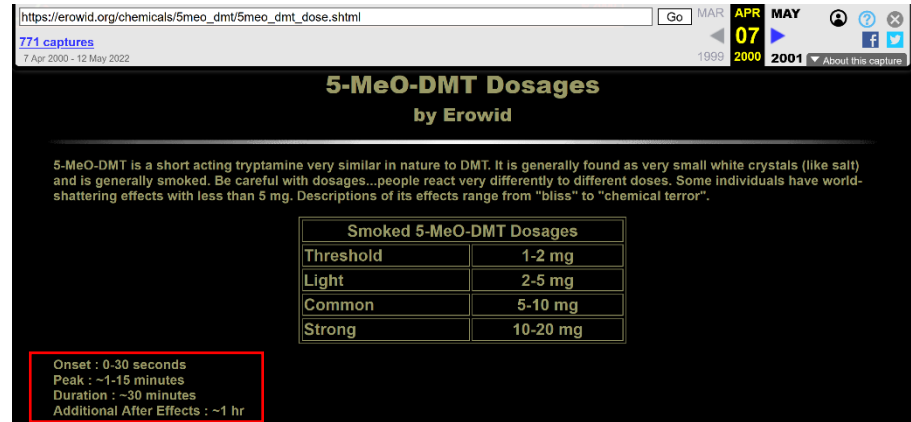
5. OTT (2001) "Pharmepéna-Psychonautics: Human Intranasal, Sublingual and Oral Pharmacology of 5-Methoxy-N, N-Dimethyl-Tryptamine" Journal

<p>wherein the 5-MeO-DMT or a pharmaceutically acceptable salt thereof is administered via inhalation.</p>	<p>of Psychoactive Drugs. 33(4)403-307.</p> <p>From <b>page 406</b> “5-MeO-DMT is of well-known psychoactivity, having been reported active by <b>inhalation of free-base vapor in doses of six to 10 mg</b>”</p> <p>2. Int’l Pat. App. Pub. No. WO/2018/195455 “ASSESSING AND TREATING PSYCHEDELIC-RESPONSIVE SUBJECTS” (Published October 25, 2018)</p> <p>From <b>page 18</b> “The term "administration" or "administering" refers to a method of giving a dosage of a pharmaceutical composition to a subject, where the method is, e.g., oral, topical, transdermal, by <b>inhalation</b>, intravenous, intraperitoneal, intracerebroventricular, intrathecal, or intramuscular.”</p> <p>From <b>claim 90</b> “The method of claim 89, wherein the 5-HT2A receptor agonist is selected from lysergic acid diethylamide (LSD), psilocybin, DOI (<math>\pm</math>)-1 -(2,5-dimethoxyphenyl)-2-aminopropane hydrochloride; (R)-DOI ((R)-1 -(2,5-dimethoxy-4-iodophenyl)-2-aminopropane); LA-SS-Az (2'S,4'S)-(+)-9,1 0-Didehydro-6-methylergoline-8p-(trans-2,4-dimethylazetidide); 2C-BCB (4-Bromo-3,6-dimethoxybenzocyclobuten-1 -yl) methylamine) ayahuasca; 3,4,5-trimethoxyphenethylamine (mescaline); <b>5-methoxy-N,N-dimethyltryptamine (5-meo-DMT)</b>; ibogaine; a compound of formula (I) formula (II) formula (III) <b>or a pharmaceutically acceptable salt thereof.</b>”</p> <p>From <b>claim 120</b> “The method of any one of claims 54-1 19, wherein the subject is being screened for <b>treatment to improve the mental well-being</b> of a subject.”</p> <p>From <b>claim 121</b> “The method of claim 120, wherein the subject is being screened for treatment of stress, treatment of anxiety, treatment of addiction, <b>treatment of depression</b>, or treating of a compulsive behavior.”</p> <p>From <b>claim 127</b> “The method of claim 126, wherein the depressive disorder is <b>major depression</b>, melancholic depression, atypical depression, or dysthymia.”</p>
<p>16. The method according to claim 1, wherein a clinical response, as assessed by at least a score of “much improved” in the <b>Clinical Global</b></p>	<p>1. DAVIS (2018) “The epidemiology of 5-methoxy-N, N-dimethyltryptamine (5-MeO-DMT) use: Benefits, consequences, patterns of use, subjective effects, and reasons for consumption” Journal of Pharmacology. 32(7)779-792.</p> <p>From <b>page 779</b> “Furthermore, of those who reported being diagnosed with psychiatric disorders, <b>the majority reported improvements in symptoms</b></p>

**Impression-Improvement (CGI-I) score or the Patient Global Impression-Improvement (PGI-I) score, occurs not later than about 2 hours after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.**

**following 5-MeO-DMT use, including improvements related to post-traumatic stress disorder (79%), depression (77%), anxiety (69%), and alcoholism (66%) or drug use disorder (60%).”**

9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000. [https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo\\_dmt/5meo\\_dmt\\_dose.shtml](https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml)



11. MOHEBBI (2018) “Patient centric measures for a patient centric era: Agreement and convergent between ratings on The Patient Global Impression of Improvement (PGI-I) scale and the Clinical Global Impressions – Improvement (CGI-S) scale in bipolar and major depressive disorder” *European Psychiatry*. 53:17-22

From **page 17** “Concordant with an increased emphasis on consumer engagement, the **Patient Global Impression Scale of Improvement (PGI-I) is commonly used** as an outcome measure in studies evaluating the efficacy of treatments in medical and psychiatric conditions **with subjective symptom domains.**”

From **page 17** “**Participants were asked to assess their symptom improvement with the PGI-I.**”

17. The method according to claim 1, wherein the clinical response, as assessed by at least a score of “much improved” in the CGI-I score or the PGI-I score, persists until at least 6 days after the last

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” *Archives of Clinical Psychiatry*. 45(1):22-24.

From **page 22** “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s  $d = 0.98$ ), and **MADRS scores were significantly reduced in the ayahuasca**

administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

group at days 1, 2 and 7.”

From page 23

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D/MADRS (baseline)	HAM-D/MADRS (D1)	HAM-D/MADRS (D7)	HAM-D/MADRS (D14)	HAM-D/MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	x	-	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	+	-	+	*	+	+ (6)	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	-	=	+	+	=	=	=	-	-	+	=	+	+ (4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	±/±	+	=	=	=	=	=	-	-	=	=	±/±	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+ (8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	±	+	+	=	=	=	=	-	-	=	=	=	+ (5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+ (3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	±	=	=	=	=	=	=	+	-	+	=	=	+ (4)	±

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+, positive, -, negative, =, neutral/stable; \*, changed medication; x, do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

\*Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

14. MULLER (2003) “Differentiating moderate and severe depression using the Montgomery–Asberg depression rating scale (MADRS)” Journal of Affective Disorders. 77:255-260.

From page 255 “HAM-D17, MADRS, and CGI scores were highly correlated ( $r > 0.85$ ;  $P < 0.0001$ )”

18. The method according to claim 1, wherein the clinical response, as assessed by at least a score of “much improved” in the CGI-I score or the PGI-I score, persists until at least 14 days after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From page 22 “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From page 22 “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d

= 0.98), and MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.”

**From page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	×	-	=	
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	+	+	+	+	+ (6)	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	-	-	+	=	+	+	+ (4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15 <sup>a</sup>	13 / 15	=/-	+	=	=	=	=	=	-	-	=	=	+/=	-	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	=	+ (8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	=	+ (5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	=	+ (3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	+	-	+	=	=	=	=	+ (4)	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable; #: changed medication; ×: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
<sup>a</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

14. MULLER (2003) “Differentiating moderate and severe depression using the Montgomery–Asberg depression rating scale (MADRS)” Journal of Affective Disorders. 77:255-260.

From page 255 “HAMD17, MADRS, and CGI scores were highly correlated (r > 0.85; P < 0.0001)”

19. The method according to claim 1, wherein the clinical response, as assessed by at least a score of “much improved” in the CGI-I score or the PGI-I score, persists until at least 28 days after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From page 22 “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From page 22 “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day**

**7 were significantly lower in patients treated with ayahuasca (Cohen’s d = 0.98), and MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.”**

**From page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D/MADRS (baseline)	HAM-D/MADRS (D1)	HAM-D/MADRS (D7)	HAM-D/MADRS (D14)	HAM-D/MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20/27	14/12	3/6	3/3	2/1	=	=	=	=	=	=	=	=	=	=	=	=	=	=
Patient 2	36	67	20/32	9/17	11/7	4/2	2/3	+	+	+	+	+	+	+	-	+	+	+	+	+	+
Patient 3	38	52	20/32	3/1	7/11	2/2	4/2	=	=	+	+	=	=	=	-	-	+	=	+	+	+
Patient 4	46	55	17/21	10/12	8/15	10/15 <sup>1</sup>	13/15	=/-	+	=	=	=	=	=	-	-	=	=	+/=	-	+
Patient 5	39	51	20/28	17/20	18/22	15/18	15/19	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Patient 6	54	51	19/23	6/3	10/9	16/14	5/8	+	+	+	=	=	=	=	-	-	=	=	=	+	+
Patient 7	28	50	23/25	5/7	5/5	6/6	5/5	=	+	=	+	=	=	=	-	-	=	=	=	+	+
Patient 8	47	49	24/29	13/17	20/23	16/19	10/17	+	=	=	=	=	=	=	+	-	+	=	=	+	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable, =/: changed medication, x: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
<sup>1</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

**From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”**

14. MULLER (2003) “Differentiating moderate and severe depression using the Montgomery–Asberg depression rating scale (MADRS)” Journal of Affective Disorders. 77:255-260.

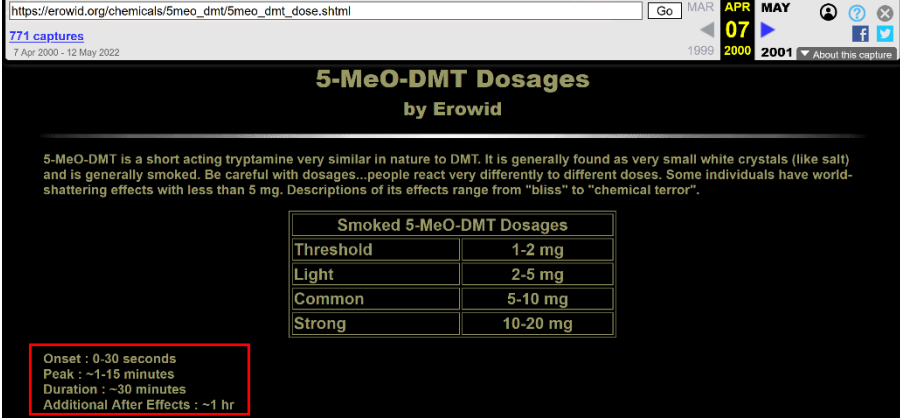
**From page 255 “HAM-D17, MADRS, and CGI scores were highly correlated (r > 0.85; P < 0.0001)”**

20. The method according to claim 1, wherein a clinical response, as assessed by at least 50% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, occurs not later than about 2 hours after the last administration of 5-

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From **claim 10** “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or less than or equal to 10 on the MADRS.

From **claim 11** “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake

<p>MeO-DMT or a pharmaceutically acceptable salt thereof.</p>	<p>inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a <b>serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist</b>”</p> <p>9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000.  <a href="https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml">https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml</a></p>  <p>The screenshot shows a web browser window with the URL <a href="https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml">https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml</a>. The page title is "5-MeO-DMT Dosages by Erowid". The main text states: "5-MeO-DMT is a short acting tryptamine very similar in nature to DMT. It is generally found as very small white crystals (like salt) and is generally smoked. Be careful with dosages...people react very differently to different doses. Some individuals have world-shattering effects with less than 5 mg. Descriptions of its effects range from "bliss" to "chemical terror"."</p> <table border="1" data-bbox="812 730 1133 856"> <thead> <tr> <th colspan="2">Smoked 5-MeO-DMT Dosages</th> </tr> </thead> <tbody> <tr> <td>Threshold</td> <td>1-2 mg</td> </tr> <tr> <td>Light</td> <td>2-5 mg</td> </tr> <tr> <td>Common</td> <td>5-10 mg</td> </tr> <tr> <td>Strong</td> <td>10-20 mg</td> </tr> </tbody> </table> <p>Additional information from the screenshot:</p> <ul style="list-style-type: none"> <li>Onset : 0-30 seconds</li> <li>Peak : ~1-15 minutes</li> <li>Duration : ~30 minutes</li> <li>Additional After Effects : ~1 hr</li> </ul>	Smoked 5-MeO-DMT Dosages		Threshold	1-2 mg	Light	2-5 mg	Common	5-10 mg	Strong	10-20 mg
Smoked 5-MeO-DMT Dosages											
Threshold	1-2 mg										
Light	2-5 mg										
Common	5-10 mg										
Strong	10-20 mg										
<p>21. The method according to claim 1, wherein a remission of depressive symptoms, as assessed by a MADRS score equal to or less than 10, or a HAM-D score equal to or less than 7, occurs not later than about 2 hours after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.</p>	<p>6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)</p> <p>From <b>claim 10</b> “The method of claim 9, wherein the decrease in depressive symptoms is a <b>50% or greater reduction of symptoms</b> identified on a <b>depression symptom rating scale</b> or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or <b>less than or equal to 10 on the MADRS.</b></p> <p>From <b>claim 11</b> “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a <b>serotonin 5HT receptor partial agonist or antagonist</b>, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a <b>serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist</b>”</p> <p>9. EROWID (1999) “5-MeO-DMT Dosage” Retrieved April 7, 2000.  <a href="https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml">https://web.archive.org/web/20000407105145/https://erowid.org/chemicals/5meo_dmt/5meo_dmt_dose.shtml</a></p>										

https://erowid.org/chemicals/5meo\_dmt/5meo\_dmt\_dose.shtml

771 captures  
7 Apr 2000 - 12 May 2022

Go MAR APR MAY 07 1999 2000 2001 About this capture

### 5-MeO-DMT Dosages by Erowid

5-MeO-DMT is a short acting tryptamine very similar in nature to DMT. It is generally found as very small white crystals (like salt) and is generally smoked. Be careful with dosages...people react very differently to different doses. Some individuals have world-shattering effects with less than 5 mg. Descriptions of its effects range from "bliss" to "chemical terror".

Smoked 5-MeO-DMT Dosages	
Threshold	1-2 mg
Light	2-5 mg
Common	5-10 mg
Strong	10-20 mg

Onset : 0-30 seconds  
Peak : ~1-15 minutes  
Duration : ~30 minutes  
Additional After Effects : ~1 hr

22. The method according to claim 1, wherein the clinical response, as assessed by at least 50% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, persists until at least 6 days after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

6. U.S. Pat. App. Pub. No. US/2010/0166889 "METHOD OF TREATING DEPRESSIVE DISORDERS" (Published July 1, 2010)

From **claim 10** "The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS**."

From **claim 11** "The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**"

12. SANTOS (2018) "Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up" Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** "Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later."

From **page 22** "We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen's d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca**

group at days 1, 2 and 7.”

From page 23

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	x	-	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	+	-	+	*	+	+ (6)	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	-	-	+	=	+	+ (4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15 <sup>a</sup>	13 / 15	=/=-	+	=	=	=	=	=	-	-	=	=	+/-	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	=	+	-	+	=	=	+ (8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	+ (5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+ (3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	=	+	-	+	=	=	+ (4)	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+; positive, -; negative, =; neutral/stable; \*; changed medication; x; do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

<sup>a</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

23. The method according to claim 1, wherein there is a clinical response, as assessed by at least 75% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, on day 7 after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From claim 10 “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS.**

From claim 11 “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**”

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From page 22 “Objectives: To investigate if the experiment had any long-

lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From **page 22** “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**”

From **page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	=	=	=	=	=	=	
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	*	+	+ (6)	+	
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	=	=	=	=	+	+ (4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	=/=-	+	=	=	=	=	=	=	=	=	=	+/-	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+ (8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	=	=	=	=	=	+ (5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	=	=	=	=	=	+ (3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	+	-	+	=	=	=	+ (4)	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable; =/: changed medication; <: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
 \*Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From **page 1269** “**5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT)** is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

24. The method according to claim 1, wherein the patient is in remission of depressive symptoms, as assessed by a MADRS score equal to or less than 10, or a HAM-D score equal to or less than 7, on day 7 after the last administration of 5-MeO-DMT or a

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From **claim 10** “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS**.”

From **claim 11** “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine

pharmaceutically acceptable salt thereof.

dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**"

12. SANTOS (2018) "Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up" Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** "Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later."

From **page 22** "We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen's d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**"

From **page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	=	=	=	=	×	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	+	+	+	+ (6)
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	=	+	=	=	+	+ (4)
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	=/-	+	=	=	=	=	=	=	=	=	=	+/-	=
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+ (8)
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	=	=	=	=	=	+ (5)
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	=	=	=	=	=	+ (3)
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	=	+	-	+	=	=	+ (4)

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable, =/: changed medication, ×: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
 \*Missing data: mean of D7 and D21.

13. RIGA (2014) "The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs" International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From **page 1269** "**5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca**, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe."

25. The method according to claim 1,

6. U.S. Pat. App. Pub. No. US/2010/0166889 "METHOD OF TREATING DEPRESSIVE DISORDERS" (Published July 1, 2010)

wherein the clinical response, as assessed by at least 50% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, persists until at least 14 days after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

From **claim 10** “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS**.”

From **claim 11** “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**”

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From **page 22** “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**”

From **page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	x	-	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	+	+	=	=	=	=	-	-	+	+	+	+	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15 <sup>1</sup>	13 / 15	=/-	+	=	=	=	=	=	-	-	=	=	+/=	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	+	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	=	+	-	+	=	=	+	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+: positive, -: negative, =: neutral/stable; x: changed medication; =: do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

<sup>1</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of

	<p>Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.</p> <p>From <b>page 1269</b> “<b>5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT)</b> is a <b>natural hallucinogen component of Ayahuasca</b>, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”</p>
<p>26. The method according to claim 1, wherein there is a clinical response, as assessed by at least 75% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, on day 14 after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.</p>	<p>6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)</p> <p>From <b>claim 10</b> “The method of claim 9, wherein the decrease in depressive symptoms is a <b>50% or greater reduction of symptoms</b> identified on a <b>depression symptom rating scale</b> or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or <b>less than or equal to 10 on the MADRS</b>.</p> <p>From <b>claim 11</b> “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a <b>serotonin 5HT receptor partial agonist or antagonist</b>, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a <b>serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist</b>”</p> <p>12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.</p> <p>From <b>page 22</b> “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that <b>ayahuasca was well tolerated and that symptom reductions were limited to a few weeks</b>. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”</p> <p>From <b>page 22</b> “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, <b>HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca</b> (Cohen’s d = 0.98), and <b>MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.</b>”</p> <p>From <b>page 23</b></p>

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13		
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	x	-	=	
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	*	+	+	(6)	+	
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	-	-	+	=	+	+	(4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	=/-	+	=	=	=	=	=	-	-	=	=	=	+/=	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+	(8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	+	(5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+	(3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	+	-	+	=	=	=	+	(4)	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable; \*=: changed medication; x: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
 \*Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

27. The method according to claim 1, wherein the patient is in remission of depressive symptoms, as assessed by a MADRS score equal to or less than 10, or a HAM-D score equal to or less than 7, on day 14 after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From claim 10 “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS.**

From claim 11 “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**”

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From page 22 “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few**

weeks. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From page 22 “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**”

From page 23

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	=	=	=	=	=	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	+	+	+	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	+	+	=	=	=	=	-	-	+	=	+	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	=/-	+	=	=	=	=	=	-	-	=	=	+/=	-
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	=	+	-	+	=	=	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+: positive, -: negative, =: neutral/stable; +/-: changed medication; x: do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

\*Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “**5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca**, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

28. The method according to claim 1, wherein the clinical response, as assessed by at least 50% improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, persists until at least 28 days after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From claim 10 “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a **depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS.**

From claim 11 “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a**

**serotonin 5-HT2 antagonist”**

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks**. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From **page 22** “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**”

**From page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D/MADRS (baseline)	HAM-D/MADRS (D1)	HAM-D/MADRS (D7)	HAM-D/MADRS (D14)	HAM-D/MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	=	=	=	=	=	=	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	*	+	+	+(6)	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	-	-	+	=	+	+(4)	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15 <sup>1</sup>	13 / 15	=/-	+	=	=	=	=	=	-	-	=	=	+/=	-	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	=	+(8)	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	=	-	-	=	=	=	+(5)	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	=	-	-	=	=	=	+(3)	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	=	+	-	+	=	=	+(4)	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+: positive, -: negative, =: neutral/stable; \*: changed medication; <: do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

<sup>1</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From **page 1269** “**5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT)** is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”

29. The method according to claim 1, wherein there is a clinical response, as assessed by at least 75%

6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)

From **claim 10** “The method of claim 9, wherein the decrease in depressive symptoms is a **50% or greater reduction of symptoms** identified on a

improvement of the MADRS or HAM-D score, compared to the respective score prior to treatment, on day 28 after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.

**depression symptom rating scale** or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or **less than or equal to 10 on the MADRS.**

From **claim 11** “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a **serotonin 5HT receptor partial agonist or antagonist**, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a **serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist**”

12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.

From **page 22** “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that **ayahuasca was well tolerated and that symptom reductions were limited to a few weeks.** Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”

From **page 22** “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, **HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca** (Cohen’s d = 0.98), and **MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.**”

From **page 23**

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	x	-	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	*	+	+ (6)	+	
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	+	+	=	=	=	-	-	+	=	+	+ (4)	+	
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15 <sup>1</sup>	13 / 15	≠/	+	=	=	=	=	-	-	=	=	+/=	-	+	
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	+ (8)	+	
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	+	=	=	=	-	-	=	=	=	+ (5)	+	
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	=	+	=	=	=	-	-	=	=	=	+ (3)	+	
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	+	-	+	=	=	+ (4)	+	

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.

+; positive, -; negative, =; neutral/stable; x; changed medication; x; do not remember.

The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.

<sup>1</sup>Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

	<p>From <b>page 1269</b> “<b>5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT)</b> is a <b>natural hallucinogen component of Ayahuasca</b>, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”</p>
<p>30. The method according to claim 1, wherein the patient is in remission of depressive symptoms, as assessed by a MADRS score equal to or less than 10, or a HAM-D score equal to or less than 7, on day 28 after the last administration of 5-MeO-DMT or a pharmaceutically acceptable salt thereof.</p>	<p>6. U.S. Pat. App. Pub. No. US/2010/0166889 “METHOD OF TREATING DEPRESSIVE DISORDERS” (Published July 1, 2010)</p> <p>From <b>claim 10</b> “The method of claim 9, wherein the decrease in depressive symptoms is a <b>50% or greater reduction of symptoms</b> identified on a <b>depression symptom rating scale</b> or achieving a score less than or equal to 7 on the HRSD 17; or less than or equal to 5 on the QIDS-SR 16; or <b>less than or equal to 10 on the MADRS</b>.</p> <p>From <b>claim 11</b> “The method of claim 5, wherein the one or more other active agent is an antidepressant, a selective serotonin reuptake inhibitor, a <b>serotonin 5HT receptor partial agonist or antagonist</b>, a norepinephrine dopamine reuptake inhibitor, a serotonin norepinephrine dopamine reuptake inhibitor, a selective serotonin norepinephrine reuptake inhibitor, a <b>serotonin 5-HT1a partial agonist, a serotonin 5-HT1b agonist, a serotonin 5-HT2 antagonist</b>”</p> <p>12. SANTOS (2018) “Long-term effects of ayahuasca in patients with recurrent depression: a 5-year qualitative follow-up” Archives of Clinical Psychiatry. 45(1):22-24.</p> <p>From <b>page 22</b> “Objectives: To investigate if the experiment had any long-lasting effects on patients Methods: Eight patients were interviewed 4 to 7 years after ayahuasca intake. Results: Our results suggest that <b>ayahuasca was well tolerated and that symptom reductions were limited to a few weeks</b>. Importantly, most patients believed that the experience was among the most important of their lives, even 4-7 years later.”</p> <p>From <b>page 22</b> “We recently replicated these results in a parallel arm, double-blind, randomised, placebo-controlled trial with 35 patients with treatment-resistant MDD15. Compared to placebo, <b>HAM-D scores at day 7 were significantly lower in patients treated with ayahuasca</b> (Cohen’s d = 0.98), and <b>MADRS scores were significantly reduced in the ayahuasca group at days 1, 2 and 7.</b>”</p> <p>From <b>page 23</b></p>

**Table 1.** Depressive symptoms assessed with the Hamilton Depression Rating Scale (HAM-D) and the Montgomery-Åsberg Depression Rating Scale (MADRS) and results from the follow-up questions

	Age at the time of the experiment	Time since the experiment (months)	HAM-D / MADRS (baseline)	HAM-D / MADRS (D1)	HAM-D / MADRS (D7)	HAM-D / MADRS (D14)	HAM-D / MADRS (D21)	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	
Patient 1	31	76	20 / 27	14 / 12	3 / 6	3 / 3	2 / 1	=	=	=	=	=	=	=	-	-	=	=	×	-	=
Patient 2	36	67	20 / 32	9 / 17	11 / 7	4 / 2	2 / 3	+	+	+	+	+	+	+	-	+	+	+	+	+	+
Patient 3	38	52	20 / 32	3 / 1	7 / 11	2 / 2	4 / 2	=	=	+	+	=	=	=	-	-	+	=	+	+	+
Patient 4	46	55	17 / 21	10 / 12	8 / 15	10 / 15*	13 / 15	±/	+	=	=	=	=	=	-	-	=	=	±/	=	+
Patient 5	39	51	20 / 28	17 / 20	18 / 22	15 / 18	15 / 19	+	+	+	=	=	=	+	-	+	=	=	+	+	+
Patient 6	54	51	19 / 23	6 / 3	10 / 9	16 / 14	5 / 8	+	+	=	=	=	=	-	-	=	=	=	=	+	+
Patient 7	28	50	23 / 25	5 / 7	5 / 5	6 / 6	5 / 5	=	+	=	+	=	=	-	-	=	=	=	=	+	+
Patient 8	47	49	24 / 29	13 / 17	20 / 23	16 / 19	10 / 17	+	=	=	=	=	=	+	-	+	=	=	+	+	+

Ayahuasca intake for these eight patients occurred between October 2010 and January 2013. Interviews were conducted between January and May 2017.  
 +: positive, -: negative, =: neutral/stable; ±: changed medication; ×: do not remember.  
 The numbers in parenthesis on question #12 are the position from 1 to 10 reported by those volunteers that had a positive answer to that question.  
 \*Missing data: mean of D7 and D21.

13. RIGA (2014) “The natural hallucinogen 5-MeO-DMT, component of Ayahuasca, disrupts cortical function in rats: reversal by antipsychotic drugs” International Journal of Neuropsychopharmacology. 17(8):1269–1282.

From page 1269 “5-Methoxy-N,N-dimethyltryptamine (5-MeO-DMT) is a natural hallucinogen component of Ayahuasca, an Amazonian beverage traditionally used for ritual, religious and healing purposes that is being increasingly used for recreational purposes in US and Europe.”



APPLICATION #  
**18/675,614**

RECEIPT DATE / TIME  
**09/27/2024 12:22:26 PM Z ET**

ATTORNEY DOCKET #

## Title of Invention

## Application Information

APPLICATION TYPE		PATENT #	
CONFIRMATION #		FILED BY	Sisi Li
PATENT CENTER #	67351600	FILING DATE	05/28/2024
CUSTOMER #	-	FIRST NAMED INVENTOR	
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

## Documents

**TOTAL DOCUMENTS: 22**

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
Third-party-notification-request.pdf		1	Request for Notification of Non-compliant Third-Party Submission	13 KB
Concise-description-generated.pdf		2	Concise Description of Relevance	36 KB
third-party-preissuance-submission.pdf		3	Third-Party Submission Under 37 CFR 1.290	73 KB
Claims_Chart.pdf		38	-	1957 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB

Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
1_DAVIS.pdf		14	-	434 KB
1_DAVIS-NPL.pdf	(1-14)	14	Non Patent Literature	138 KB
3-WO2019064031A1.pdf		31	-	1322 KB
3-WO2019064031A1-FOR.pdf	(1-31)	31	Foreign Reference	1316 KB
2-WO2018195455A1.pdf		77	-	4378 KB
2-WO2018195455A1-FOR.pdf	(1-77)	77	Foreign Reference	4362 KB
4_HERMANN.pdf		11	-	1843 KB
4_HERMANN-NPL.pdf	(1-11)	11	Non Patent Literature	1832 KB
5_OTT.pdf		6	-	1522 KB
5_OTT-NPL.pdf	(1-6)	6	Non Patent Literature	1513 KB
7-EROWID-2003.pdf		1	-	167 KB
7-EROWID-2003-NPL.pdf	(1-1)	1	Non Patent Literature	160 KB
8-MAJIC.pdf		13	-	182 KB
8-MAJIC-NPL.pdf	(1-13)	13	Non Patent Literature	190 KB
9-EROWID.pdf		1	-	180 KB
9-EROWID-NPL.pdf	(1-1)	1	Non Patent Literature	175 KB
10-HERRMANN.pdf		14	-	890 KB

10-HERRMANN-NPL.pdf

(1-14)

14

Non Patent Literature

996 KB

**Digest****DOCUMENT****MESSAGE DIGEST(SHA-512)**Third-party-notification-  
request.pdf30E4DC693CA9B27E23F582425F492ABCC300B83B047920DE9  
781BAB1E89B8BED35671EF29B95F358D3471256748D9ADDF0  
362E92C8CDDDB66E0D5A471D9C52C72Concise-description-  
generated.pdfDA327F4789BB6A4A36878A3BD1414F02F2D7DB459D5EDB12  
450F58BC6CB1319A24056C751DEB0AEFC714EE39BE8B261D  
FB4FB3547F17441943134877B53B4608third-party-preissuance-  
submission.pdfCD725EB4FFCC7AEE4DB6842CB49F3F73D7A2C64A4FEC38  
F89E74D8B5D56FDAE9D9723D80E844F219ACD1EDCD216DF  
739CE6189DB14CD39754C0CA97B962AD45

Claims\_Chart.pdf

A8096903FCAC71DEA1B3B5DDF23A94204B1DE9C9BF9F0927  
57FD3A356A0515567C362D9308DDFD9A367D45961AFA8A845  
DB032A609A62DE13B0D0D9DB98303CFClaims\_Chart-  
3P.RELEVANCE.pdf502A22BEADFCFA0E69FA3D651A7F82E64A2FE1187B3CB4BEF  
B0F8EA5C557AFF95B002E7ADB3706BBB5A76743CE04778BC  
4844CDB2BB692D1DA871EDF38184358CClaims\_Chart-  
3P.RELEVANCE.pdf1C24DC9B2171A1D5FC6AFAED459FE19CA662DD1726028E23  
1F13885A7549A1103C1D52D5D4B1C0827542366C39668C8371  
4975001B89968111DC625155586808Claims\_Chart-  
3P.RELEVANCE.pdfA34C309E0B17DE8E1D23B54728576E52496F22CA0348181AF  
390B326C149E8C3E0F568A666B6A45D6ECBCB4B3CC4FF849  
F468710401DBA64131BE88562F78360Claims\_Chart-  
3P.RELEVANCE.pdfDB03CD2FF6D8FA39D68145F075A14FC131C0B8ACFC74E9D1  
73C602EB8BF64907668ACD64A082C32E03A7F9E69A457D8AB  
3555D5F6FCF7F2AFEE7EABF89CAD46DClaims\_Chart-  
3P.RELEVANCE.pdf00CA5BD8460CF673F39D6B670DFBD97DFD2C58A3D8DBE3A  
1D499D2877B3EDC4F16259F047C3C44C0651BACC5FBB7FC2  
75914E82CB685AC4904E63281B39A1DF8Claims\_Chart-  
3P.RELEVANCE.pdf31DFF9C51C37787FAFB1387475C2219D529306352BA4CCF49  
F3818344B57632D16DBC58311FB49E60D11B727C2A25C1C3D  
F044F1E93AD5B39A730A103506C928Claims\_Chart-  
3P.RELEVANCE.pdf597281DB8445997FFB2895AEB713543FC7955A336617472AE8  
5A11643FF5FF6152C2CD862ADCDABCA57E130C96B00F72E4  
14D8F44AFCF5831707CA2797F3559B

Claims\_Chart-

CA608999EAD6873825F2BC5D39F036329DF306B7C5243B215

3P.RELEVANCE.pdf F4DA58A5118E91B2F53E127C7E6629224C81FF16DE5424B78  
9B2FC92DCE342554F4B7D407E35E59

Claims\_Chart-  
3P.RELEVANCE.pdf C9A017135D49BCE413B3D260F9EA3F99D2B8B4FBA0DC7057  
EE04D2EEF47A0DAF72D483FEE313F3A3A44A0568E05A7B26  
FA7D240CB8385FF3D4E90B46E51F3884

Claims\_Chart-  
3P.RELEVANCE.pdf AE346F30C7341142A66A53D1F879D43B354354A39CB4560EB  
A105B03A3712A7A48F84529A84F7D7ECF03A8CF59B8CB0CF  
B412658EA96CFB94E6A1F7897AD0725

1\_DAVIS.pdf 316D913EF4E6876EF1BD80C6C5740ECEA41B6EE2F7E979CD  
6E2FC77833A259ADE9CE055FE772BB6B191E7AFC3154DB46  
11675965B96C5D109453779D8BD83ED2

1\_DAVIS-NPL.pdf 9028C39B85D7CC05A13E117626D19516C18A4DA9A7710E5EA  
7E2AB54AFE1EF5AC3D0181EF975FC4E49F8FE72E44AD0D7A  
A8D32FF6E3E21F501473F50FE632F63

3-WO2019064031A1.pdf FA4767B626E44010AD9EF14B596221567430B11D731D9A4052  
A924C768A8B09038CF1E8125B62FB76A3CD18D2509E5662EE  
B9F7BD62654013A410935123BDE9E

3-WO2019064031A1-FOR.pdf 4F2D0168CC9F628A12E721FA4E79ED9110878F73A2EDFE6D2  
0556806F74666F775C2D032DF20244A6659BF8C24A5E0AD6D  
197A1EE3163141536BFA860CADA15E

2-WO2018195455A1.pdf 5ADDE169A394AE5C0DBE66B0346B585C12C7336A6CB5174F  
A9E32CCE871D74A1F0221E446FE76FF3E081EA9D8AB40A324  
253A726E96022ABF2B50C3D0378D7FC

2-WO2018195455A1-FOR.pdf 1D4209585F4DC0B87F12A5ECD092A62A4798AAC0B8C6F604  
C52A38AFD40C0EDCB832394843447A47BCF439A46836D66A0  
6DFAC7B687FDFB996A88B09875DF7C0

4\_HERMANN.pdf EECA4C8DD54FF32E87BB8A103C26E83875525640326F4905C  
583FA7791A7A6E07DE7F975BB4C347156560084EF95FF7E310  
0DF8F9012DF261F1557A0142D2F5D

4\_HERMANN-NPL.pdf 6A3E8FC40AF3499C39FF47C6E60794507F3DC43A63B5B9F0A  
25BEAC018EE8671BC83086F2B82B0342DBE333ED123058D7B  
5D1EEF23251DDB561FEB7212AF0942

5\_OTT.pdf F178E5319062CBBC5932DCE9DDE10E0F2E7AE43B1BF42EBB  
C1B42BC001DFAC2685885AC05D36E4BE58D60125F0089537A  
B509C8A0065A08C8D284341996FB628

5\_OTT-NPL.pdf 830B10C9268556A5C9E8369C15058060B3DE9F443908185A52  
64262CF55A38E48350A15B2A46E279CCB3066671C2238DCC6  
4B821B6CD1FA23ABFE42828ED2FBD

7-EROWID-2003.pdf C1C01522127FFB352CE5BBB55BC9F896887B0294CE553ECB  
1E18004F75A40A1110245BD6EA1AE239BAEE9DBF5450D2F64  
5D10064F277254AB1F24BE6BA1860EF

7-EROWID-2003-NPL.pdf	3D4E7D147297D60D1732A126CA3C04632E8D880C7D2F99FFA FFC08621CF5E9C7ADE93EBB8409A3B17302E89849996414E3 B7EBB42D2ED053614F11F13D954E28
8-MAJIC.pdf	BF11772B47B6C22983F3B79AAF67505BA4F81B26BD90A949D FEE6807DA7996460578C341D86674BB3B5D5BCE50EE889B5E 485D491BBF34F28556BE4CBB272C6D
8-MAJIC-NPL.pdf	5D67AAFBCACEEBE1E0F6D5A5770D370525E72F5FA32A81C3 AFA7C00EB53F1E96717120AA936ED8934781EC4F81C529AC6 21D35F11B462C12DCC2A69B3DD7AF9D
9-EROWID.pdf	DF2A848DB337798597286684C5495DEAB6428A404F39CF5F0 554319EF69A8FED45D9936BAB94EED31B90817CA9EA5E3C8 25B24A3FDA9758A94100BAA3E74E8CC
9-EROWID-NPL.pdf	74BF73BDA8BF08F8F53D0CC6CF876824075913AE711A5F6C CDBD83F981A4CFC13AC45AE3FC3ED20E57FB9B05F68638A1 BCB3B9316128DB80D88D7949001F8031
10-HERRMANN.pdf	BC63C7E6638B60F80FB7FB0553A2DC8B711750168A796CD0C F03B2770DECC2EAC664FF9E7080C762494D229758D4A06416 1A92B80971695B7A5DB710B1CDE530
10-HERRMANN-NPL.pdf	8BAB9E6E7E41A1CDA08AB3249B04021B22FCC2679B7253FD 9E33DDCDD93B74984E81F0388E416EA98086DF6286BDF5947 7C5FEF7AD5F35D957BB2A6DDC524F4D

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### **New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### **National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### **New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES  
PATENT AND TRADEMARK OFFICE

P.O. Box 1450  
Alexandria, VA 22313 - 1450  
www.uspto.gov

## ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
<b>18/675,614</b>	<b>09/27/2024 12:22:26 PM Z ET</b>	

### Title of Invention

### Application Information

APPLICATION TYPE	PATENT #
CONFIRMATION #	FILED BY Sisi Li
PATENT CENTER # 67351600	AUTHORIZED BY -
CUSTOMER # -	FILING DATE 05/28/2024
CORRESPONDENCE ADDRESS -	FIRST NAMED INVENTOR

### Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 0642	E20249QC23566405	Sisi Li

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2818	DOCUMENT FEE FOR THIRD-PARTY SUBMISSIONS (SEE 37 CFR 1.290(F))	72.00	1	72.00
			<b>TOTAL AMOUNT:</b>	<b>\$72.00</b>

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



APPLICATION #  
**18/675,614**

RECEIPT DATE / TIME  
**09/27/2024 12:32:39 PM Z ET**

ATTORNEY DOCKET #

## Title of Invention

## Application Information

APPLICATION TYPE		PATENT #	
CONFIRMATION #		FILED BY	Sisi Li
PATENT CENTER #	67352033	FILING DATE	05/28/2024
CUSTOMER #	-	FIRST NAMED INVENTOR	
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

## Documents

**TOTAL DOCUMENTS: 23**

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Concise-description-generated.pdf	3	Concise Description of Relevance	39 KB
Third-party-notification-request.pdf	1	Request for Notification of Non-compliant Third-Party Submission	13 KB
third-party-preissuance-submission.pdf	3	Third-Party Submission Under 37 CFR 1.290	76 KB
Claims_Chart.pdf	38	-	1957 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38) 38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38) 38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38) 38	Concise Description of Relevance	1837 KB

Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38)	38	Concise Description of Relevance	1837 KB
11-MOHEBBI.pdf		6	-	663 KB
11-MOHEBBI-NPL.pdf	(1-6)	6	Non Patent Literature	633 KB
12-SANTOS.pdf		3	-	117 KB
12-SANTOS-NPL.pdf	(1-3)	3	Non Patent Literature	94 KB
13-RIGA.pdf		14	-	946 KB
13-RIGA-NPL.pdf	(1-14)	14	Non Patent Literature	936 KB
14-MULLER.pdf		6	-	226 KB
14-MULLER-NPL.pdf	(1-6)	6	Non Patent Literature	217 KB
15-CARHART.pdf		10	-	604 KB
15-CARHART-NPL.pdf	(1-10)	10	Non Patent Literature	566 KB
16-OLIN.pdf		11	-	283 KB
16-OLIN-NPL.pdf	(1-11)	11	Non Patent Literature	279 KB
18-STUDERUS.pdf		19	-	1020 KB
18-STUDERUS-NPL.pdf	(1-19)	19	Non Patent Literature	1016 KB
17-BARRETT.pdf		20	-	980 KB
17-BARRETT-NPL.pdf	(1-20)	20	Non Patent Literature	961 KB
19-SCHIFANO.pdf		13	-	399 KB
19-SCHIFANO-NPL.pdf	(1-13)	13	Non Patent Literature	350 KB

20-BARRETT.pdf		49	-	1413 KB
20-BARRETT-NPL.pdf	(1-49)	49	Non Patent Literature	1331 KB

## Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Concise-description-generated.pdf	8B7DA81EF47A817BAA22E62256834B11C9CD9FFEE146145BF B8B52515BB7BA6FB0F4F67856FA5E3506426761C411599711D 42E646CBBBCDAFB743A90E275B8F72
Third-party-notification-request.pdf	9EE96BCD0DDA48804A585262A14E93DF02C21D8953EE51422 C6C0CD67CA592CB96BFA8F3F6FCA22941A3F8FBE0094D79A 30AAD37D7A1DEB11ED114094DB190B5
third-party-preissuance-submission.pdf	08A8444AC2EE7290EFBB15F52373922380AFE2FEAA027499F B9420B9D341B7927BF89D0FAF01EF90A74E9EBC3D928976E1 DA3A5FC85EF5301E42FA1F01D2B2BE
Claims_Chart.pdf	A8096903FCAC71DEA1B3B5DDF23A94204B1DE9C9BF9F0927 57FD3A356A0515567C362D9308DDFD9A367D45961AFA8A845 DB032A609A62DE13B0D0D9DB98303CF
Claims_Chart-3P.RELEVANCE.pdf	44A4D691FCEE3D4FA977525AD38495DC7355BF812FEBA8FC 17E4E20D1106CE489EC9B9AB7918BAAF865F453193A1B186C 9FF5377B8076916A1EF5E3A65AE86E1
Claims_Chart-3P.RELEVANCE.pdf	913FBFB399639B8E0398496008311EAC13D4C99828810270BB 382ADFC30A40F49CFF85E9455AC145E795DD34AC822F520 CA24754720B40E11DEF50E95CEE1EE
Claims_Chart-3P.RELEVANCE.pdf	CE3D7D8967A65A6F5691590204E8DAEC281A0284A713917BA EA694766E84BC292D3B35BBF9D1EC24C3F14D2DB4191BBED 4D55A057C549472B8AAFF543B30BD4E
Claims_Chart-3P.RELEVANCE.pdf	7B49FF2CE1C8B754443A4C2904A90B4816E97A82E9BE7372B E4F186C51A01058C5AC112A2E111CD8F35629FC9947440482 5FDBEE97443C05583265655B5ED3D6
Claims_Chart-3P.RELEVANCE.pdf	7B351E12923AFEE7DAF4478443FB6740ED1027BAC26C85EE BBE08541746B6BE1D54504CA2B43C1DA95F5FCCCBFB4DF91 EF72027A2FF99560B0D9DA1352157D54
Claims_Chart-3P.RELEVANCE.pdf	4DAC93D9977138AC77B439A1D1851440450E2296110AA468C D92158F064183B2B90FE1A597C7F37D1CB0A72ECEA1BF11D 4C32E5D25E350B299B8AA969640C285
Claims_Chart-3P.RELEVANCE.pdf	0848A317C3A1C90720C245CF61D86B0ABADB08FE2185C42B 36BE93215450B1F0E58B5699771D89633FB4B28A169D22B056 DA0CAD07A90EE04E1A88AD7DE39EBF

Claims_Chart- 3P.RELEVANCE.pdf	70F2772C574266C69943A92DC47A1CA551A5E8F529B1D0077 D1CAFF5E5F1B2D74A76A21D673C41A2D4BA62EA8087AA469 27408289A935EE5B90B713C71ABE603
Claims_Chart- 3P.RELEVANCE.pdf	51D5124E5E44113060286BCF3518F3280F342608EF0C72DEE0 F4623CA32BA5C0FB405B870C2059D5318E02F0DEFED0D5A3 6E52274EAA755315BD7859DD1E8ACA
Claims_Chart- 3P.RELEVANCE.pdf	0B4777C8651ACD3DE58BAEF8E4C99B8DA7A2BF2842CF159D D79D6F85A6D7F9DB927E5C68D81A1393BD0CC8E6AB3B5C83 E5556821C97D9B053FAE940B2DDC708B
11-MOHEBBI.pdf	8F24FD9C65A167FFCD059F9C8B391FF6F1CF417CE16F0AB8 26AFF90970360F78447DF8BF7F6E687C4D3F46DB15A37572E 02CCC80D837DF3EF04AEAF9EECA2B3B
11-MOHEBBI-NPL.pdf	5251B33374C9AA711A9A37BBF8AE0A1B4D5DABE6CC44D655 2F5CBFAB1C0A1BBF7CE950D789D83737DBAC8E5CDFA520B A3EFC5288C70295B2CB05219BB03C675A
12-SANTOS.pdf	8EBAA0CEA1FF52052B4BF53F27F5F473287E12E58955C4D64 1C5EF836622371132EC0620CC6305C95F2A1ED7319608FCC7 27998745F382ADE112C57B44A75A19
12-SANTOS-NPL.pdf	669C0C04B918EC2AD87774F9943219AF67765BEAFAAD742AF 6008B32AE1AD1FA597A992B11FD075F08D951A3141EECBA85 78CC28C22780DEA57E25C56515A348
13-RIGA.pdf	6240944A96BCD53BBDE898EFF3AE2885B0855D8669124DFF5 37EE941245E0DF9622495583CC7EAF5DD1EACFB844409EC3 9B418AB960CA4D5ACB36EA71D664694
13-RIGA-NPL.pdf	095D2CE9E369E98084AE2B0B993A757FD7B977884C9D38F51 4B4FB24A2C112601089CDF26CC8BB23A0C5FE5F7A74B33420 F6D7DB9618F997E67B6AECBF339005
14-MULLER.pdf	D1BC29C5A671FA8E6A96F350A2241F62933CF8189BE5BE425 B29E5618AA2919576EAFE399FFE86188F1E4A048252455D7 C4762E643B1C7FB09B9D2B31614203
14-MULLER-NPL.pdf	F2CBC9FE322B17EEE25216FEAE3141ADFBB3E66DDE861B19 681053A7E09FC64A1BB76B27DAC0C2B95C42057A9ADA9783 86DB7E983A68A5B6117474DED035ABEA
15-CARHART.pdf	BE2B1430314BDA5AAEA6B58E77246E47C8124EE52D598CE2 24867FA2B7EDD21244516DB89511FC33A27AC83BF35EC111D 0EE34374B27B23381051971A223821F
15-CARHART-NPL.pdf	1C3E5E255C4FF577524366FF8FA72845644B9F919D1AA123F0 CE4D0278A02677F2C46EA58B95C90B68638AFE9C8BD6BFD4 D18EF4AB79014207DF65D5D4A400DA
16-OLIN.pdf	9098B4C13D13CDD41C4C7B871B8D03C836A661B74A3AC9F6 D6142C54532848D631C41DD75AA5D3356570B6E0AB49CFEE

3FF34C5D0A5D14A7D7B8D70A47D4289F

16-OLIN-NPL.pdf ABA887DDCBD84A6B6CAF63289AD1B3ACCE9B93A2AB2170A  
B4080A5FE65BF9E23E8B2CA41FDA9C729C8F97D64B23FAE2  
D259E5002808885E7297AF5E697FF895B

18-STUDERUS.pdf CED77E7FFAA708A53FF3FBE111E9C0835A3FD7D0B131D6F0  
9BF9FC38C94CDF1B93A3913C8E6F2331175576747A3D4899E  
BAE88860755F6DF4948B1EABE5AE409

18-STUDERUS-NPL.pdf 3E936D227209431425F3D75ADD4F20F8267F7DA21B68666BA  
0EB3C42D4E789A0D4D100E330D71BFF2A99DEC39FA7E7B38  
E9550E1B019A23177548C37E38F2E26

17-BARRETT.pdf 89DFC51167953893F2746EB617ACBDB07C4CE54147C52178F  
A9D0907D752B75F7E07031B7AB7D2768E78FFBFC4B77BC8A  
8C39F8CF2208528D6B7CDF41F4FFF32

17-BARRETT-NPL.pdf 6205D5D7572A93F710E693510F3A62192DEB2470D27EF365E  
D68E4582AAE110B1995058AB69139F81586CA4D2D8081553F5  
ECCAE6E4A89D8AAD2860408113509

19-SCHIFANO.pdf A2200E3B160A96CCF5AD690A283A55F9AA667759FABF8DBC  
1B2CCAE580F1195397A258B8C91BCCB73E10848D6524DDA4  
8EA057698342D6FAA380D57CD6704B7B

19-SCHIFANO-NPL.pdf 91E94DC7F568A5C19A755E3C50FF1A9657D11753D4C081FAC  
60FC67C500ED5F4AAB8F9657E477BAB80D1AF5E136708296C  
F71AB42E7764D61E1D2B0720F5A0F2

20-BARRETT.pdf BE0BE8C5F1874C59A2D6D3CCD2D115D4236C37CCEF684C7  
C3E0B6DA6566A40AFE9266354D34D65042B849F6AA3E1EB5A  
B656528452BD0278966E85407808CA12

20-BARRETT-NPL.pdf BB1C3E4DD216B33CA685FDBC6423ACAE3F4317883035E11B  
CC53DC9BA70BAA7D6EF3D54E067C2622318E99E28B942BEB  
6FBD22D24453D2C5E97CFF11CEF1BBB6

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### **New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### **National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

#### **New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the

International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES  
PATENT AND TRADEMARK OFFICE

P.O. Box 1450  
Alexandria, VA 22313 - 1450  
www.uspto.gov

## ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
<b>18/675,614</b>	<b>09/27/2024 12:32:39 PM Z ET</b>	

### Title of Invention

### Application Information

APPLICATION TYPE	PATENT #
CONFIRMATION #	FILED BY Sisi Li
PATENT CENTER # 67352033	AUTHORIZED BY -
CUSTOMER # -	FILING DATE 05/28/2024
CORRESPONDENCE ADDRESS -	FIRST NAMED INVENTOR

### Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 0642	E20249QC33386917	Sisi Li

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2818	DOCUMENT FEE FOR THIRD-PARTY SUBMISSIONS (SEE 37 CFR 1.290(F))	72.00	1	72.00
			<b>TOTAL AMOUNT:</b>	<b>\$72.00</b>

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



APPLICATION #  
**18/675,614**

RECEIPT DATE / TIME  
**09/27/2024 12:35:41 PM Z ET**

ATTORNEY DOCKET #

**Title of Invention**

**Application Information**

APPLICATION TYPE		PATENT #	
CONFIRMATION #		FILED BY	Sisi Li
PATENT CENTER #	67352285	FILING DATE	05/28/2024
CUSTOMER #	-	FIRST NAMED INVENTOR	
CORRESPONDENCE ADDRESS	-	AUTHORIZED BY	-

**Documents**

**TOTAL DOCUMENTS: 5**

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
Concise-description-generated.pdf	2	Concise Description of Relevance	24 KB
third-party-preissuance-submission.pdf	2	Third-Party Submission Under 37 CFR 1.290	42 KB
Third-party-notification-request.pdf	1	Request for Notification of Non-compliant Third-Party Submission	13 KB
Claims_Chart.pdf	38	-	1957 KB
Claims_Chart-3P.RELEVANCE.pdf	(1-38) 38	Concise Description of Relevance	1837 KB
21-SCHENBERG.pdf	5	-	121 KB
21-SCHENBERG-NPL.pdf	(1-5) 5	Non Patent Literature	117 KB

## Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
Concise-description-generated.pdf	672C98230FD5F66AD718F7C6971B83C4849CED40AB8CC6AB2D998B1EC8BDCE4F1AA5CB1EF05EDEC30B89D4D13BA7DA3C80B674176E629AD0E59C09FE94F45FCA
third-party-preissuance-submission.pdf	5422C114470D6AD755B3E93966DA968F48EE64A4B0FCEAF00A0034D2D78F37B0348D2CBFF228E3C5639D4134623AC96D42E649C57C47CB16C936CFCA70A2E0AC
Third-party-notification-request.pdf	335D8A93464D4338C96AE62F86C72745D0574EB7A91690F8A739A03DDA39D13A6B1FF0BD7A3139BD4CE3FC789DA639CE77B7E170F935B3E8ECEDA3B64120AAB4
Claims_Chart.pdf	A8096903FCAC71DEA1B3B5DDF23A94204B1DE9C9BF9F092757FD3A356A0515567C362D9308DDFD9A367D45961AFA8A845DB032A609A62DE13B0D0D9DB98303CF
Claims_Chart-3P.RELEVANCE.pdf	50C7E1A3D2ED026AFE7C3B1A2B577EE020C2ABFA83DE8CC6146B7941AB1EDB25AED4B719ACE885956E4C4B00FD2ECEADBDC7AD152A07A7BBA5B01DDC321E0C80
21-SCHENBERG.pdf	32437529772179AADA8DD410F403F2EFBC93C3667D5FB76979B2E42786034F499FDE76D7CF0C2F584351394BFDF3A0B5E2C0C9BD69868682BCD117EA4EB503A3
21-SCHENBERG-NPL.pdf	34FC2E840C2C4052D73959261A8BBC7B817136A7C227386C59EC0FFD24C5031266F362CE48FACEFF21D14AC58C4BB917DB3BB557538CD49F8ECBE59DE9B792C3

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

### **New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

### **National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

### **New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES  
PATENT AND TRADEMARK OFFICE

P.O. Box 1450  
Alexandria, VA 22313 - 1450  
www.uspto.gov

## ELECTRONIC PAYMENT RECEIPT

APPLICATION #	RECEIPT DATE / TIME	ATTORNEY DOCKET #
<b>18/675,614</b>	<b>09/27/2024 12:35:41 PM Z ET</b>	

### Title of Invention

### Application Information

APPLICATION TYPE	PATENT #
CONFIRMATION #	FILED BY Sisi Li
PATENT CENTER # 67352285	AUTHORIZED BY -
CUSTOMER # -	FILING DATE 05/28/2024
CORRESPONDENCE ADDRESS -	FIRST NAMED INVENTOR

### Payment Information

PAYMENT METHOD	PAYMENT TRANSACTION ID	PAYMENT AUTHORIZED BY
CARD / 0642	E20249QC36267116	Sisi Li

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2818	DOCUMENT FEE FOR THIRD-PARTY SUBMISSIONS (SEE 37 CFR 1.290(F))	72.00	1	72.00
			<b>TOTAL AMOUNT:</b>	<b>\$72.00</b>

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

#### New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application

#### National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.