| Psilocybin and/or psilocin in combination with cannabinoids and/or terpenes | |
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| Country Code | WO |
| Publication Number | 2018/135943 |
| Document Kind | A1 |
| Publication Date | July 26, 2018 |
| Filing Date | January 18, 2018 |
| Priority Date | January 18, 2017 |
| Patent Applicant/Patent Owner | PROCARE BEHEER B.V. |
| Most relevant passages or drawings | Claims 1, 2, 9<br><br>Pages: 9, 10, 14 |
| Relevant to claims | 1, 2, 3, 4, 5, 7, 8, 9, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 60, 61, 63, 64, 68, 69 |
| Brief explanation of relevance | From claim 1 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use in the prevention or treatment of a psychological disorder, wherein the at least one cannabinoid and/or at least one terpene is administered separately, sequentially or simultaneously to the psilocybin and/or psilocin.”; relevant to WO2022079574 claims 1, 2, 3, 4, 5, 7, 8, 9, 39, 40, 41, 68, 69<br><br>From claim 2 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use according to claim 1 , wherein the psychological disorder is chosen from depression, psychotic disorder, schizophrenia, schizophreniform disorder (acute schizophrenic episode); schizoaffective disorder; bipolar I disorder (mania, manic disorder, manic-depressive psychosis); bipolar II disorder; major depressive disorder with psychotic feature (psychotic depression); delusional disorders (paranoia); Shared Psychotic Disorder (Shared paranoia disorder); Brief Psychotic disorder (Other and Unspecified Reactive Psychosis); Psychotic disorder not otherwise specified (Unspecified Psychosis); paranoid personality disorder; schizoid personality disorder; schizotypal personality disorder, anxiety disorder, panic disorder, panic attacks, agoraphobia, attention deficit syndrome, premenstrual dysphoric disorder (PMDD), and premenstrual syndrome (PMS).”; relevant to WO2022079574 claims 60, 61<br><br>From claim 10 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use according to any of the previous claims, wherein the psilocybin and/or psilocin are |

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| | present in the form of an extract from a mushroom and/or truffle (sclerotium), preferably from the genus Psilocybe, Gymnopilus, Panaeolus, Copelandia, Hypholoma, Pluteus, Inocybe, Conocybe, Panaeolina, Gerronema, Agrocybe, Galerina and/or Mycena, more preferably P. azurescens, P. semilanceata, P. cyanescens, and/or P. cubensis, P. subcubensis, P. tampanensis, P. mexicana A, P. atlantis, and/or P. semilanceata."; relevant to WO2022079574 claim 8<br><br>From page 9 "Psilocybin is a naturally occurring psychedelic compound produced by more than 200 species of mushrooms, collectively known as psilocybin mushrooms. The most potent are members of the genus Psilocybe, such as P. azurescens, P. semilanceata, and P. cyanescens, but psilocybin has also been isolated from about a dozen other genera."; relevant to WO2022079574 claim 7<br><br>From page 10 "Preferably the one or more cannabinoids are taken from the group: cannabidiol (CBD); cannabidiolic acid (CBDA); tetrahydrocannbidivarin (THCV); tetrahydrocannbidivarinin acid (THCVA); cannabichromene (CBC); cannabichromenic acid (CBCA); cannabigerol (CBG) and cannabigerolic acid (CBGA)."; relevant to WO2022079574 claims 1, 8, 9, 68, 69<br><br>From page 14 "The quantity of active compound(s) per unit dose may be varied according to the nature of the active compound and the intended dosage regime. Generally an effective amount shall be used, which may be within the range of from 0.01 mg to 5000 mg, preferably 0.01-4000 mg, 0.1-3000 mg, 1-2500, 5-1000, or 10-100 mg per unit dose (for the at least one cannabinoid and/or the at least one terpene and/or the at least one psilocybin and/or the at least one psilocin)." and "Generally, the weight ratio of the at least one cannabinoid and/or the at least one terpene to the at least one psilocybin/psilocin is decided by considering the properties of each constitute to be combined, the properties of drug combination and the symptoms of the patient. Preferably the weight ratio is in the range of 1 part by weight of the cannabinoid and/or terpene to about 0.01 to about 500 parts by weight of the psilocybin/psilocin, more preferably 1 part by weight of the cannabinoid/terpene to about 0.1 to about 100 parts by weight of the psilocybin/psilocin. More preferably the cannabinoid is a phyto-cannabinoid which may be present as a synthesized compound, an isolated compound or as an extract containing one or more other phyto-cannabinoids and other plant constituents in varying amounts. The extract may have had individual cannabinoids, such as THC, selectively removed in whole or |

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| | part"; relevant to WO2022079574 claims 1, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 63, 64 |

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| Crystalline norpsilocin compounds | |
|---|---|
| Country Code | WO |
| Publication Number | 2021/188812 |
| Document Kind | A1 |
| Publication Date | September 23, 2021 |
| Filing Date | March 18, 2021 |
| Priority Date | March 19, 2020 |
| Patent Applicant/Patent Owner | CAAMTECH, INC. |
| Most relevant passages or drawings | Claims 1, 3 |
| Relevant to claims | 6 |
| Brief explanation of relevance | From claim 1 "A crystalline norpsilocin compound selected from the group consisting of: crystalline 4-hydroxy-A/-methyltryptamine (norpsilocin freebase); and crystalline 4-hydroxy-A/-methyltryptammonium fumarate (norpsilocin fumarate)."; relevant to WO2022079574 claim 6<br><br>From claim 3 "A composition comprising a crystalline norpsilocin compound according to claim 1 and a second component selected from (a) a serotonergic drug, (b) a purified psilocybin derivative, (c) one or two purified cannabinoids and (d) a purified terpene."; relevant to WO2022079574 claim 6 |

3.

| Compositions and methods comprising a psilocybin derivative | |
|---|---|
| Country Code | AU |
| Publication Number | 2018/217829 |
| Document Kind | A1 |
| Publication Date | August 16, 2018 |
| Filing Date | February 9, 2018 |
| Priority Date | February 9, 2017 |
| Patent Applicant/Patent Owner | CAAMTECH, INC. |
| Most relevant passages or drawings | Claims 1, 14, 15, 22, 23, 24<br><br>Page: 14 |

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| Relevant to claims | 33, 34, 36, 37, 38 |
| Brief explanation of relevance | From claim 1 “A composition, comprising: a first purified psilocybin derivative; wherein the first purified psilocybin derivative is chosen from [3-(2-Dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3 (2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, and 4-hydroxy-N,N,N trimethyltryptamine; and a second purified psilocybin derivative; wherein the second purified psilocybin derivative is chosen from [3-(2-Dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3 (2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, and 4-hydroxy-N,N,N trimethyltryptamine.”; relevant to WO2022079574 claims 36, 37, 38<br><br>From claim 14 “The composition of claim 1, comprising a first purified cannabinoid.”; relevant to WO2022079574 claims 36, 37, 38<br><br>From claim 15 “The composition of claim 14, wherein the first purified cannabinoid is chosen from THC, THCA, THCV, THCVA, CBC, CBCA, CBCV, CBCVA, CBD, CBDA, CBDV, CBDVA, CBG, CBGA, CBGV, or CBGVA.”; relevant to WO2022079574 claims 36, 37, 38<br><br>From claim 22 “The composition of claim 21, wherein the first purified psilocybin derivative and the first purified cannabinoid are present as a homogeneous mixture.”; relevant to WO2022079574 claims 33, 34<br><br>From claim 23 “A “The composition of claim 1, comprising a first purified terpene.”; relevant to WO2022079574 claims 33, 34<br><br>From claim 24 “The composition of claim 23, wherein the first purified terpene is chosen from bornyl acetate, alpha-bisabolol, borneol, camphene, camphor, carene, beta-caryophyllene, cedrene, cymene, elemene, eucalyptol, eudesmol, farnesene, fenchol, geraniol, guaiacol, humulene, isoborneol, limonene, linalool, menthol, beta-myrcene, nerolidol, ocimene, phellandrene, phytol, pinene, pulegone, sabinene, terpineol, terpinolene, or valencene.” relevant to WO2022079574 claims 33, 34 |

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| | From page 14 “As used herein, the term "cannabinoid" refers to a compound from a class of molecules commonly found in plants of the genus cannabis and their derivatives. In one embodiment, the cannabinoid is endogenous to an animal, i.e., an endocannabinoid. In one embodiment, the cannabinoid is derived from a plant, e.g., a plant of genus cannabis, i.e., a phytocannabinoid.” relevant to WO2022079574 claims 37, 38 |

4.

| Compositions and methods comprising a psilocybin derivative | |
|---|---|
| Country Code | AU |
| Publication Number | 2020/319012 |
| Document Kind | A1 |
| Publication Date | January 28, 2021 |
| Filing Date | July 23, 2020 |
| Priority Date | July 23, 2019 |
| Patent Applicant/Patent Owner | CAAMTECH, INC. |
| Most relevant passages or drawings | Claims 1, 4, 5, 6 |
| Relevant to claims | 11, 12 |
| Brief explanation of relevance | From claim 1 “A composition comprising, consisting essentially of, or consisting of two purified toad secretion tryptamines chosen from the following 5-MeO-DMT, 5-MeO-NMT, 5-Methoxytryptamine, bufobutanoic Acid, bufobutarginine, bufoserotonin A, bufoserotonin B, bufoserotonin C, bufotenidine, bufotenin, bufotenin Oxide, bufotenine-O-Sulphate, bufoviridine, dET, dMT, n-Acetylserotonin, n'-Formylserotonin, n-Methylserotonin, o-Methylbufoviridine, serotonin, tryptamine, and bufopyramide or the salts of these toad secretion tryptamines.”; relevant to WO2022079574 claims 11, 12<br><br>From claim 4 “A pharmaceutical formulation comprising a composition of claim 1 or claim 2 and a pharmaceutically acceptable excipient, wherein the first purified toad secretion tryptamine and the second toad secretion tryptamine are each present in a therapeutically effective amount.”; relevant to WO2022079574 claims 11, 12<br><br>From claim 5 “A pharmaceutical composition of claim 4 further comprising a therapeutically effective amount of a serotonergic drug, a purified psilocybin derivative, a purified cannabinoid, or a purified terpene.”; relevant to WO2022079574 claims 11, 12 |

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| | From claim 6 “A pharmaceutical composition of claim 4 or 5, wherein therapeutically amount of each tryptamine separately ranges from about 0.5 mg - about 200 mg, about 1 mg - about 100 mg, about 2 mg - about 50 mg, about 5 mg - about 25 mg or 25 mg”; relevant to WO2022079574 claims 11, 12 |

5.

| Tryptamine compositions for enhancing neurite outgrowth | |
|---|---|
| Country Code | WO |
| Publication Number | 2021/101926 |
| Document Kind | A1 |
| Publication Date | May 27, 2021 |
| Filing Date | November 18, 2020 |
| Priority Date | November 19, 2019 |
| Patent Applicant/Patent Owner | Stamets, Paul Edward |
| Most relevant passages or drawings | Claims 1, 4, 6, 7, 8<br><br>Pages 4, 19, 20, 24, 25, 37, 56 |
| Relevant to claims | 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 35, 50, 51, 52, 53, 54, 55, 58, 59 |
| Brief explanation of relevance | From claim 1 “A composition comprising one or more tryptamines or in pure form or extracts or isolates from psilocybin containing mushrooms or combinations thereof combined with one or more erinacines or hericenones in pure form, extracts or isolates from *Hericium* mushroom species, or combinations thereof.”; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35, 50, 53, 54, 55, 58, 59<br><br>From claim 4 “The composition of claim 1, wherein the composition further comprises one or more cannabinoids in pure form or extracts or isolates from Cannabis sativa, Cannabis indica, or Cannabis ruderalis.”; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24, 27, 28, 35, 50, 52, 53, 54, 55, 58, 59<br><br>From claim 6 “The composition of claim 1, wherein the composition further comprises one or more phenethylamines or amphetamine in pure form or extracts or isolates from plants comprising thereof.”; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24<br><br>From claim 7 “The composition of claim 8, wherein the phenethylamines or amphetamines comprises 3,4,5- |

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| | trimethoxyphenethylamine (Mescaline), 2,5-dimethoxy-4-methylamphetamine (DOM), 2,5-dimethoxy-4-bromophenethylamine (2C-B), 2,5-dimethoxy-4- ethylphenethylamine (2C-E), 2,5-dimethoxy-4-ethylthiophenethylamine (2C-T-2), 2,5- dimethoxy-4-propylthiophenethylamine (2C-T-7), p-methoxy-amphetamine (PMA), 2,4- dimethoxy-amphetamine (2,4-DMA), 3,4-dimethoxy-amphetamine (3,4-DMA), 3,4- methylenedioxy-amphetamine (MDA), 3-methoxy-4,5-methylendioxy-amphetamine (MMDA), 2-methoxy-3,4-methylendioxyamphetamine (MMDA-3a), 2-methoxy-4,5-methylendioxyamphetamine (MMDA-2), 3,4,5-trimethoxyamphetamine (TMA), 2,4,5- trimethoxyamphetamine (TMA-2), 2,5-dimethoxy-3,4-methylenedioxyamphetamine (DMMDA), 2,3-dimethoxy-4,5-methylenedioxyamphetamine (DMMDA-2), 2,3,4,5- tetramethoxyamphetamine (TeMA), (R)-2,5-dimethoxy-4-iodoamphetamine, inter alia, pharmaceutically acceptable salts, hydrates, solvates, prodrugs, stereoisomers, or tautomers thereof."; relevant to WO2022079574 claim 18<br><br>From claim 8 "The composition of laim 1, wherein the composition further comprises one or more adversive compounds comprising niacin, ipecac, apomorphine, bittering agents (e.g. denatonium benzoate), capsaicin, capsacutin dihydrocapsaicin, nordihydrocapsaicin, homocapsaicin, homodihydrocapsaicin, capsaicinoids, gingerol, pipeline, isopiperine, zingerone, shogaol, vanillylamide derivatives, or combinations thereof."; relevant to WO2022079574 claims 25, 26<br><br>From page 4 "In another aspect, the composition further comprises one or more extracts or pure chemicals from other plant species comprising Bacopa species (Bacopa monnien), Gotu kola (Centella asiatica), and Gingko (Gingko biloba, Ginger (Zingiber officinale), Holy Basil (Ocimum sanctum), Hu Zhang (Polygonum cuspidatum), Oregano (Origanum vulgare, Origanum onites), Rosemary (Rosmarinus officinalis, Rosmarinus eriocalyx, species in the genus Rosmarinus), Turmeric (Curcuma longa), Green Tea (Camellia sinensis), lavender (Lavandula spica and related species in the genus Lavandula), skullcap (Scutellaria lateriflora) oat straw (Avena sativa, Avena byzantina), Salvia divinorum, aka Diviner's Sage, Banisteriopsis caapi and Psychotria species, plants containing ibogaine (Tabemanthe iboga, Voacanga africana and Tabemaemontana undulate), peyote (Lophophora williamsii), the seeds of morning glory (Ipomoea tricolor and related species) and Hawaiian baby wood rose (Argyreia nervosa), Acacia confusa, Acacia obtusifolia, Acacia simplicifolia, Desmanthus Illinoensis, or Cannabis (Cannabis sativa, C. indica and C. |

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| | ruderalis) or combinations thereof."; relevant to WO2022079574 claims 20, 28<br><br>From page 19 "The compositions described herein may be administered orally, parenterally, by inhalation spray, topically, rectally, nasally, buccally, vaginally or via an implantable resevouir."; relevant to WO2022079574 claims 50, 51<br><br>From page 20 "The pharmaceutically acceptable composition described herein may be orally administered acceptable dosage form including, but not limited to, capsules, tablets, aqueous suspensions, or solutions."; relevant to WO2022079574 claim 52<br><br>From page 24 "Another embodiment is a composition a tryptamine, an erinacine, a hericenone, a cannabinoid, or a pharmaceutically acceptable salt, hydrate, solvate, prodrug, stereoisomer, or tautomer thereof, or a combination thereof, for use in treating neuronal injuries, neurodegeneration, neurological diseases, congenital or organic cognitive impairment, learning disabilities, autism spectrum disorder, psychiatric or mood disorders, cognitive enhancement, physical or motor neuron enhancement, or general improvement of mental health in a subject in need thereof. In another embodiment, the composition is useful for treating or preventing a neurological disorder, a respiratory disorder, a proliferative disorder, an autoimmune disorder, and autoinflammatory disorder, an inflammatory disorder, of an infectious disease or disorder."; relevant to WO2022079574 claims 53, 54, 55, 58<br><br>From page 25 "Another embodiment is a use of a compound of comprising a tryptamine, an erinacine, a hericenone, a cannabinoid, or a pharmaceutically acceptable salt, hydrate, solvate, prodrug, stereoisomer, or tautomer thereof in the manufacture of a medicament for treating or preventing neuronal injuries, neurodegeneration, neurological diseases, congenital or organic cognitive impairment, learning disabilities, autism spectrum disorder, psychiatric and mood disorders, cognitive enhancement, or general improvement of mental health."; relevant to WO2022079574 claim 59<br><br>From page 37 "One or more dosage forms of the composition described herein can be administered, for example, 1x, 2x, 3x, 4x, 5x, |

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| | 6x, or even more times per day."; ."; relevant to WO2022079574 claim 37<br><br>From page 56 "In another embodiment, the compositions described herein comprises one or more natural products such as aliphatic natural products, alkaloids, amino acids, anthranilic acid alkaloids, apiole, (+)-aromanderndrene, asarone, aurones, benzofuranoids, benzofurans, benzophenones, benzopyranoids, benzopyrans, benztropolones, cis-α-bergamotene, trans-α-bergamotene, α-bisabolol, borneol, γ-cadinene, caffeic acid, camphor, carbohydrates, carotenoids, 3-carene, β-carbolines, trans-β-caryophyllene, catechins, chalcones, chavicol, chavicols, chromones, cineol, cinnamic acid, cinnamic aldehydes, cinnamic monolignols, conferyl alcohol, coniferyl alcohol, cordysinin, coumarins, coumaric acid, coumaryl alcohol, cutin, depsides, depsidones, dillapiole, diterpenes, diterpenoids, γ-elemene, elemicin, eleutherosides, esterterpenoids, estragole, eudesman-3,7(11)-diene, β-eudesmol, γ-eudesmol, eugenol, trans-β-farnesene, ferulic acid, haramane, harmine, norharmine, harmol, α-humuline, β-fenchol, 5-hydroxyferulic acid, flavonoids, glycopeptides, hydroxycinnamic acids, hydroxylated fatty acids, imidazole alkaloids, isoflavonoids, isoquinoline alkaloids, β-lactams, lignans, limonoids, R-limonene, (−)-linalool, lipids, lysine alkaloids, meroterpenoids, methyl eugenol, miscellaneous terpenoids, monoterpenoid indole alkaloids, monoterpenoids, myrcene, myristicin, nerolidol, nicotinic acid alkaloids, cis-ocimene, 1-octanol, ornithine alkaloids, otenoids, oxazole alkaloids, oxygen heterocycles, peptides, phellanderene, phenolics, phenylalanine alkaloids, phenylpropanoids, phenylpropanoids., phenylpropenes, perlolyrine, pinene, polycyclic aromatic natural products, polyketide alkaloids, polyketides, polypyrroles, ptteridines, purines, putrescine alkaloids, pyrazine alkaloids, pyrimidines, pyrrole alkaloids, quassinoids, quinonemethides, quinones, quinoxaline alkaloids, resveratrol, trans-resveratrol, cis-sabinene hydrate, safrole, γ-selinene, semiochemicals, septide alkaloids, sesquiterpenes, sesquiterpenoids, simple aromatic natural products, sinapic acid, sinapyl alcohols, spermidine alkaloids, spermine alkaloids, sporopollenin, steroidal alkaloids, steroids, sterols, stilbenes, stilbenoids, suberin, tannins, terpenoid alkaloids, terpenoids, γ-terpinene, α-terpineol, terpinolene, tetraterpenoids, thiazole alkaloids, triterpenes, triterpenoids, tryptophan alkaloids, tyrosine alkaloids, umbelliferone, xanthones, or a pharmaceutically acceptable salt, hydrate, solvate, prodrug, stereoisomer, or tautomer thereof, or a combination thereof."; relevant to WO2022079574 claims 21, 22, 23, 24, 29 |

6.

| Methods of treating neurocognitive disorders, chronic pain and reducing inflammation | |
|---|---|
| Country Code | AU |
| Publication Number | 2020/258806 |
| Document Kind | A1 |
| Publication Date | November 11, 2021 |
| Filing Date | April 17, 2020 |
| Priority Date | April 17, 2019 |
| Patent Applicant/Patent Owner | Compass Pathfinder Limited |
| Most relevant passages or drawings | Pages 58, 150, 151, 153, 154 |
| Relevant to claims | 62, 67 |
| Brief explanation of relevance | From page 58 “In some embodiment, the method of treatment include treatment concurrently with one or more medications, including but not limited to selective-serotonin reuptake inhibitors, selective norepinephrine reuptake inhibitors, tricyclic antidepressants, and/or monoamine oxidase inhibitors. In some embodiments, the method include treatment such that subjects or patients take concomitant compounds or medications, including but not limited to benzodiazepines, cannabidiol (CBD) and/or other cannabinoids (e.g., THC (tetrahydrocannabinol); THCA (tetrahydrocannabinolic acid); CBD (cannabidiol); CBDA (cannabidiolic acid); CBN (cannabinol); CBG (cannabigerol); CBC (cannabichromene); CBL (cannabicyclol); CBV (cannabivarin); THCV (tetrahydrocannabivarin); CBDV (cannabidivarin); CBCV (cannabichromevarin); CBGV (cannabigerovarin); CBGM (cannabigerol monomethyl ether); CBE (cannabielsoin); CBT (cannabicitran); and/or the like) magnesium, Levomefolic acid, e.g., for a period of time prior to, just prior to, and/or at the same time as receiving psilocybin.”; relevant to WO2022079574 claims 62, 68<br><br>From page 150 “1. A method of reducing inflammation in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of psilocybin or an active metabolite thereof.”; relevant to WO2022079574 claim 67<br><br>From page 151 “1. A method of reducing inflammation in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of psilocybin or an active metabolite thereof.”; relevant to WO2022079574 claim 62 |

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| | From page 151 “7. The method of any one of embodiments 1-6, wherein administration of the psilocybin reduces the level of at least one inflammatory biomarker or indicator in a biological sample of the subject.” ; relevant to WO2022079574 claims 62, 67<br><br>From page 151 “8. The method of embodiment 7, wherein the inflammatory biomarker is a pro inflammatory cytokine.” ; relevant to WO2022079574 claims 62, 67<br><br>From page 151 “9. The method of embodiment 8, wherein the pro-inflammatory cytokine is interleukin-1 (IL-1), tumor necrosis factor (TNF), gamma-interferon (IFN-y), IL-1p, IL-6, IL-10, IL-12, IL-18, granulocyte-macrophage colony stimulating factor (GMCSF), C-X-C chemokine ligand 1 (CXCL1) or CXCL9.” ; relevant to WO2022079574 claims 62, 67<br><br>From page 153 “48. The method of any of embodiments 1-47, wherein the psilocybin is administered in a dosage form comprising a therapeutically effective amount of highly pure crystalline psilocybin in the form of Polymorph A, wherein the crystalline psilocybin comprises at least 90% by weight of Polymorph A.”; relevant to WO2022079574 claim 67<br><br>From page 154 “58. The method of any of embodiments 48-57, wherein the dosage form further comprises about 5 to 40 mg of the highly pure crystalline psilocybin.”; relevant to WO2022079574 claim 67 |

7.

| The Spiritual Matrix - Mushrooms & Cannabis | |
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| Author | OurLucidDream |
| URL | https://web.archive.org/web/20180428011658/https://erowid.org/experiences/exp.php?ID=111844 |
| Retrieval Date | April 28, 2018 |
| Publication Date | April 23, 2018 |
| Name of Website | Erowid |
| Most relevant | Dose chart at top of page |

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| passages or drawings | |
| Relevant to claims | 10 |
| Brief explanation of relevance | From dose chart at top of page: combination of 1.5g oral dried mushrooms; repeated smoked high THC cannabis; oral cannabidiol; relevant to WO2022079574 claim 10 |

8.

| Compounds for use in a method of treating or preventing neurological and/or psychiatric disorders | |
|---|---|
| Country Code | WO |
| Publication Number | 2021/019023 |
| Document Kind | A1 |
| Publication Date | February 4, 2021 |
| Filing Date | July 30, 2020 |
| Priority Date | August 1, 2019 |
| Patent Applicant/Patent Owner | The Beckley Foundation |
| Most relevant passages or drawings | Claims 1, 2, 14<br><br>Page 11 |
| Relevant to claims | 13, 14 |
| Brief explanation of relevance | From claim 1 “Compound for use in a method of treating, preventing, reducing the symptoms of or slowing the progression of a neurological and/or psychiatric disorder, wherein a therapeutically effective amount of the compound is administered to a subject and the subject is provided with a cognitive training, and wherein the compound is an ergoline derivative or a pharmaceutically acceptable salt thereof.” relevant to WO2022079574 claims 13 and 14<br><br>From claim 2 “The compound for use according to claim 1 , wherein the compound is a lysergamide or a pharmaceutically acceptable salt thereof, preferably lysergic acid diethylamide (LSD) or a pharmaceutically acceptable salt thereof.” relevant to WO2022079574 claims 13, 14<br><br>From claim 14 “The compound for use according to any of claims 1 to 12 or the composition for use according to item 13, wherein the |

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| | compound or the composition is administered concurrently with, before or after one or more therapeutic agents such as an acetylcholinesterase inhibitor, an NMDA receptor inhibitor, an antidepressant, an anxiolytic, a cannabinoid; or therapies such as transcranial magnetic stimulation (TMS), electroconvulsive therapy, deep brain stimulation, behavioral therapies such as mindfulness, acceptance and commitment therapy, cognitive behavioral therapy (CBT), biofeedback, and hypnosis." relevant to WO2022079574 claims 13, 14<br><br>From page 11 "Examples of ergoline derivatives include lysergic acid 2-butyl amide, lysergic acid 2-pentyl amide, lysergic acid 3-pentyl amide, lysergic acid 2-hexyl amide, N,N-diallyl lysergamide, lysergic acid methyl isopropyl amide, lysergic acid diethylamide (LSD), 6-ethyl-6-nor-lysergic acid diethylamide, 6-propynyl-6-nor-lysergic acid diethylamide, 6-allyl-6-nor-lysergic acid diethylamide, 6-propyl-6-nor-lysergic acid diethylamide, 6-cyclopropyl-6-nor-lysergic acid diethylamide, 6-butyl-6-nor-lysergic acid diethylamide, 1 -acetyl lysergic acid diethylamide, 1-propyonyl lysergic acid diethylamide, 1-propyonyl-6-ethyl-6-nor-lysergic acid diethylamide, N-morpholinyl lysergamide, N-pyrrolidyl lysergamide, N-piperidyl lysergamide, and lysergic acid 2,4-dimethylazetidine." relevant to WO2022079574 claims 13, 14 |

9.

| Garden Centre Psychedelic LSA & Cannabis | |
|---|---|
| Author | Mimwell |
| URL | https://web.archive.org/web/20170623091324/https://erowid.org/experiences/exp.php?ID=110478 |
| Retrieval Date | June 23, 2017 |
| Publication Date | June 11, 2017 |
| Name of Website | Erowid |
| Most relevant passages or drawings | Dose chart at top of page |
| Relevant to claims | 15, 16 |

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| Brief explanation of relevance | From dose chart at top of page: combination of 1 smoked cannabis cigarette, 4.5 g sublingual ground/crushed morning glory seeds, ginger tea, and 3 bowls of smoked cannabis ; relevant to WO2022079574 claims 15, 16 |

10.

| Chloroplast genome of the nutmeg tree: Myristica fragrans Houtt. (Myristicace) | |
|---|---|
| Title of Periodical | bioRxiv |
| Volume/Issue Number | preprint |
| Publication Date | February 26, 2020 |
| Author | Sylvia Mota de Oliveira, Elza Duijm, Hans ter Steege |
| Page Range | 1-8 |
| DOI | https://doi.org/10.1101/2020.02.25.964122 |
| Most relevant passages or drawings | Page 1 |
| Relevant to claims | 21, 22, 23, 24 |
| Brief explanation of relevance | From page 1 "*Myristica fragrans* Houtt. is the most important species of the plant family Myristicaceae in the global market. The tree bears fruits containing oblong seeds, wrapped in a red aril. The world export volume of these seeds and arils, namely nutmeg and mace, attained a peak of 15,501 tons in 2011."; relevant to WO2022079574 claims 21, 22, 23, 24 |

11.

| Medicinal Spices and Vegetables from Africa: Chapter 23- Myristica fragrans: A Review | |
|---|---|
| Author | V. Kuete |
| Year of Publication | 2017 |
| DOI | https://doi.org/10.1016/B978-0-12-809286-6.00023-6 |
| Most relevant passages or drawings | Page 1 |
| Relevant to claims | 21, 22, 23, 24 |
| Brief explanation of relevance | From page 498 "Nutmeg contains a volatile oil, a fixed oil, proteins, fats, starch, and mucilage. Nutmeg yields 5–15% of volatile oil, containing sabinene, camphene, myristin (8), elemicin (9), isoelemicin, eugenol, isoeugenol, methoxyeugenol, safrole, diametric phenylpropanoids, lignans, neolignans, etc."; relevant to WO2022079574 claims 21, 22, 23, 24 |

12.

| Method of inducing dendritic and synaptic genesis in neurodegenerative chronic diseases | |
|---|---|
| Country Code | WO |

| | |
|---|---|
| Publication Number | 2019/246532 |
| Document Kind | A1 |
| Publication Date | December 26, 2019 |
| Filing Date | June 21, 2019 |
| Priority Date | June 21, 2018 |
| Patent Applicant/Patent Owner | Petcavich, Robert John |
| Most relevant passages or drawings | Claims 1, 2, 16, 26 |
| Relevant to claims | 29, 30, 31, 32 |
| Brief explanation of relevance | From claim 1 “A method of inducing neuron dendritic and synaptic genesis in neurodegenerative diseases by administering one or more tryptamine molecules or pharmaceutically acceptable salts thereof, to a patient in suffering from a neurodegenerative disease.”; relevant to WO2022079574 claims 29, 30, 31, 32<br><br>From claim 2 “The method according to claim 1, wherein said one or more tryptamine molecules is selected from the group consisting of lysergic acid diethylamide, N, N-dimethyltryptamine, 5-methoxy-N, N-dimethyltryptamine, mescaline, psilocin, 3,4-methylenedioxymethamphetamine, and psilocybin, pharmaceutically acceptable salts thereof and combinations thereof.”; relevant to WO2022079574 claims 29, 30, 31, 32<br><br>From claim 16 “The method according to claim 1, further comprising the step of administering an antioxidant to said patient.”; relevant to WO2022079574 claims 29, 30, 31, 32<br><br>From claim 26 “The method according to claim 16, wherein said antioxidant administered to said patient is selected from the group consisting of melatonin, fisetin, hydroxytyrosol, camosic acid, vitamin E, vitamin C, curcumin, nicotinamide mononucleotide, tetrahydrocannabinol and cannabidiol.”; relevant to WO2022079574 claims 29, 30, 31, 32 |

13.

| Curcumin: A Review of Its’ Effects on Human Health | |
|---|---|
| Title of Periodical | Foods |

| | |
|---|---|
| Volume/Issue Number | Volume 6, Issue 10 |
| Publication Date | October 22, 2017 |
| Author | Susan J. Hewlings, Douglas S. Kalman |
| DOI | https://doi.org/10.3390/foods6100092 |
| Most relevant passages or drawings | Page 1 |
| Relevant to claims | |
| Brief explanation of relevance | From page 1 “Turmeric is a rhizomatous herbaceous perennial plant (Curcuma longa) of the ginger family. The medicinal properties of turmeric, the source of curcumin, have been known for thousands of years; however, the ability to determine the exact mechanism(s) of action and to determine the bioactive components have only recently been investigated.”; relevant to WO2022079574 claims 31, 32 |

14.

| Compositions and methods comprising a psilocybin derivative | |
|---|---|
| Country Code | WO |
| Publication Number | 2018/148605 |
| Document Kind | A1 |
| Publication Date | August 16, 2018 |
| Filing Date | February 9, 2018 |
| Priority Date | February 9, 2017 |
| Patent Applicant/Patent Owner | CAAMTECH, LLC |
| Most relevant passages or drawings | Claim 1 |
| Relevant to claims | 48, 49 |
| Brief explanation of relevance | From page 23 “In one embodiment, a first purified terpene is chosen from acetanisole, acetyl cedrene, anethole, anisole, benzaldehyde, bornyl acetate, borneol, cadinene, cafestol, caffeic acid, camphene, camphor, capsaicin, carene, carotene, carvacrol, carvone, alpha-caryophyllene, beta-caryophyllene, caryophyllene oxide, cedrene, cedrene epoxide, cecanal, cedrol, cembrene, cinnamaldehyde, cinnamic acid, citronellal, citronellol, cymene, eicosane, elemene, estragole, ethyl acetate, ethyl cinnamate, ethyl maltol, eucalyptol/1 ,8-cineole, eudesmol, eugenol, euphol, farnesene, farnesol, fenchone, geraniol, geranyl acetate, guaia-1 (10), 1 1-diene, guaiacol, guaiol, guaiene, gurjunene, herniarin, hexanaldehyde, hexanoic acid, humulene, ionone, ipsdienol, isoamyl acetate, isoamyl alcohol, isoamyl formate, isoborneol, isomyrcenol, isoprene, isopulegol, isovaleric acid, lavandulol, limonene, gamma-linolenic acid, linalool, longifolene, lycopene, menthol, methyl butyrate, 3-mercapto-2- |

| | |
|---|---|
| | methylpentanal, beta-mercaptoethanol, mercaptoacetic acid, methyl salicylate, methylbutenol, methyl-2-methylvalerate, methyl thiobutyrate, beta-myrcene, gamma- muurolene, nepetalactone, nerol, nerolidol, neryl acetate, nonanaldehyde, nonanoic acid, ocimene, octanal, octanoic acid, pentyl butyrate, phellandrene, phenylacetaldehyde, phenylacetic acid, phenylethanethiol, phytol, pinene, propanethiol, pristimerin, pulegone, retinol, rutin, sabinene, squalene, taxadiene, terpineol, terpine-4-ol, terpinolene, thujone, thymol, umbelliferone, undecanal, verdoxan, or vanillin."; relevant to WO2022079574 claims 48, 49 |

15.

| 3,4-methylenedioxymethamphetamine (MDMA--Ecstasy) decreases neutrophil activity through the glucocorticoid pathway and impairs host resistance to Listeria monocytogenes infection in mice | |
|---|---|
| Title of Periodical | Journal of Neuroimmune Pharmacology |
| Volume/Issue Number | Volume 9, Issue 5 |
| Publication Date | August 12, 2014 |
| Author | V. Ferraz-de-Paula, A. Ribeiro, J. Souza-Queiroz, M. L. Pinheiro, J. F. Vecina, D. P. M. Souza, W. M. Quinteiro-Filho, R. L. M. Moreau, M. L. S. Queiroz, J. Palermo-Neto |
| Page Range | 690-702 |
| DOI | 10.1007/s11481-014-9562-0 |
| Most relevant passages or drawings | Figure 8 (page 699) |
| Relevant to claims | 56, 62 |
| Brief explanation of relevance | From Figure 8: "Cytokine and chemokine serum levels in normal and L. monocytogenes-infected mice pretreated with MDMA (10 mg kg−1 ) 24, 48, and 72 h after infection. TNF (a), IL-6 (b), IFN-γ (c), IL12-p80 (d), IL-10 (e), MCP-1 (f). The different numbers on top of the bars indicate statistics difference between the different groups with p <0.05 (one way ANOVA followed by Tukey's multiple comparisons test). The data are reported as the mean +/-SD of 12 mice/group"; relevant to WO2022079574 claims 56, 62 |

16.

| Anti-inflammatory and antioxidant effects of a combination of cannabidiol and moringin in LPS-stimulated macrophages |
|---|

| | |
|---|---|
| Title of Periodical | Fitoterapia |
| Volume/Issue Number | Volume 112 |
| Publication Date | May 20, 2016 |
| Author | Thangavelu Soundara Rajan, Sabrina Giacoppo, Renato Iori, Gina Rosalinda De Nicola, Gianpaolo Grassi, Federica Pollastr , Placido Bramanti, Emanuela Mazzon |
| Page Range | 104-115 |
| DOI | https://doi.org/10.1016/j.fitote.2016.05.008 |
| Most relevant passages or drawings | Figure 5 (page 109) |
| Relevant to claims | 57 |
| Brief explanation of relevance | From Figure 5: “Fig. 5. Western blot analysis for Nrf2 (A); p**** b 0.0001 vs LPS, p**** b 0.001 vs LPS + CBD, p**** b 0.001 vs LPS + moringin, p**** b 0.001 vs LPS + CBD + moringin. Western blot analysis for iNOS (B); p**** b 0.0001 vs LPS, p*** = 0.0002 vs LPS + CBD, p**** b 0.001 vs LPS + moringin, p**** b 0.001 vs LPS + CBD + moringin. GAPDH was used to normalize the signal. ND not detectable.”; relevant to WO2022079574 claim 57 |

**PATENT COOPERATION TREATY**

# PCT

## THIRD PARTY OBSERVATION

**(PCT Administrative Instructions Part 8)**

| | |
|---|---|
| Applicant's or agent's file reference<br>4882-001PC01 | |
| International application number<br>PCT/IB2021/059301 | International filing date (day/month/year)<br>12 Oct 2021 (12/10/2021) |
| Applicant<br>GOODCAP PHARMACEUTICALS LTD. | |

| | |
|---|---|
| Third party observation submitted by<br>Taylor KURTZWEIL | Observation submitted on behalf of<br>Porta Sophia |
| Date of submission(day/month/year)<br>01 Nov 2022 (01/11/2022) | Language of observation<br>English |

**Basis and contents of observation**

1. The observation is made on the basis of the claims in the international application as filed.
2. The observation comprises:
   References to documents: 10
   Uploaded copies of documents: 1
3. Further explanations:
   Uploaded copies of documents: 1

## Citation # 1 (Patent/utility model) (# uploaded documents: 0):

| | | |
|---|---|---|
| Country code:<br>WO | Publication number:<br>2018/135943 | Document kind code:<br>A1 |
| Patent Applicant/Patent Owner:<br>PROCARE BEHEER B.V. | Title of invention:<br>Psilocybin and/or psilocin in combination with cannabinoids and/or terpenes | |
| Link to document: | | |
| Publication Date:<br>26 Jul 2018 (26/07/2018) | Filing Date:<br>18 Jan 2018 (18/01/2018) | Priority Date:<br>18 Jan 2017 (18/01/2017) |

| | | | |
|---|---|---|---|
| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |

| | |
|---|---|
| Most relevant passages or drawings:<br>Claims 1, 2, 9 Pages: 9, 10, 14 | Relevant to Claims:<br>See explanation |

Brief explanation of relevance:

Relevant to claims 1, 2, 3, 4, 5, 7, 8, 9, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 60, 61, 63, 64, 68, 69

From claim 1 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use in the prevention or treatment of a psychological disorder, wherein the at least one cannabinoid and/or at least one terpene is administered separately, sequentially or simultaneously to the psilocybin and/or psilocin.”; relevant to WO2022079574 claims 1, 2, 3, 4, 5, 7, 8, 9, 39, 40, 41, 68, 69

From claim 2 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use according to claim 1 , wherein the psychological disorder is chosen from depression, psychotic disorder, schizophrenia, schizophreniform disorder (acute schizophrenic episode); schizoaffective disorder; bipolar I disorder (mania, manic disorder, manic-depressive psychosis); bipolar II disorder; major depressive disorder with psychotic feature (psychotic depression); delusional disorders (paranoia); Shared Psychotic Disorder (Shared paranoia disorder) ; Brief Psychotic disorder (Other and Unspecified Reactive Psychosis); Psychotic disorder not otherwise specified (Unspecified Psychosis); paranoid personality disorder; schizoid personality disorder; schizotypal personality disorder, anxiety disorder, panic disorder, panic attacks, agoraphobia, attention deficit syndrome, premenstrual dysphoric disorder (PMDD), and premenstrual syndrome (PMS).”; relevant to WO2022079574 claims 60, 61

From claim 10 “Psilocybin and/or psilocin in combination with at least one cannabinoid and/or at least one terpene for use according to any of the previous claims, wherein the psilocybin and/or psilocin are present in the form of an extract from a mushroom and/or truffle (sclerotium), preferably from the genus Psilocybe, Gymnopilus, Panaeolus, Copelandia, Hypholoma, Pluteus, Inocybe, Conocybe, Panaeolina, Gerronema, Agrocybe, Galerina and/or Mycena, more preferably P. azurescens, P. semilanceata, P. cyanescens, and/or P. cubensis, P. subcubensis, P. tampanensis, P. mexicana A, P. atlantis, and/or P. semilanceata.”; relevant to WO2022079574 claim 8

From page 9 “Psilocybin is a naturally occurring psychedelic compound produced by more than 200 species of mushrooms, collectively known as psilocybin mushrooms. The most potent are members of the genus Psilocybe, such as P. azurescens, P. semilanceata, and P. cyanescens, but psilocybin has also been isolated from about a dozen other genera.”; relevant to WO2022079574 claim 7

From page 10 “Preferably the one or more cannabinoids are taken from the group: cannabidiol ( CBD); cannabidiolic acid (CBDA); tetrahydrocannbidivarin (THCV); tetrahydrocannbidivarinin acid ( THCVA); cannabichromene (CBC); cannabichromenic acid (CBCA); cannabigerol (CBG) and cannabigerolic acid (CBGA).”; relevant to WO2022079574 claims 1, 8, 9, 68, 69

From page 14 “The quantity of active compound(s) per unit dose may be varied according to the nature of the active compound and the intended dosage regime. Generally an effective amount shall be used, which may be within the range of from 0.01 mg to 5000 mg, preferably 0.01-4000 mg, 0.1-3000 mg, 1-2500, 5-1000, or 10-100 mg per unit dose (for the at least one cannabinoid and/or the at least one terpene and/or the at least one psilocybin and/or the at least one psilocin).” and “ Generally, the weight ratio of the at least one cannabinoid and/or the at least one terpene to the at least one psilocybin/psilocin is decided by considering the properties of each constitute to be combined, the properties of drug combination and the symptoms of the patient. Preferably the weight ratio is in the range of 1 part by weight of the cannabinoid and/or terpene to about 0.01 to about 500 parts by weight of the psilocybin/psilocin, more preferably 1 part by weight of the cannabinoid/terpene to about 0.1 to about 100 parts by weight of the psilocybin/psilocin. More preferably the cannabinoid is a phyto-cannabinoid which may be present as a synthesized compound, an isolated compound or as an extract containing one or more other phyto-cannabinoids and other plant constituents in varying amounts. The extract may have had individual cannabinoids, such as THC, selectively removed in whole or part”; relevant to WO2022079574 claims 1, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 63, 64

Citation # 2 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2021/188812 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| CAAMTECH, INC. | |

Link to document:

| Publication Date: | Filing Date: | Priority Date: |
|---|---|---|
| 23 Sep 2021 (23/09/2021) | 18 Mar 2021 (18/03/2021) | 19 Mar 2020 (19/03/2020) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
|---|---|---|---|
| | | | |

| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Claims 1, 3 | 6 |

Brief explanation of relevance:

From claim 1 “A crystalline norpsilocin compound selected from the group consisting of: crystalline 4-hydroxy-A/-methyltryptamine (norpsilocin freebase); and crystalline 4-hydroxy-A/-methyltryptammonium fumarate (norpsilocin fumarate).”; relevant to WO2022079574 claim 6

From claim 3 “A composition comprising a crystalline norpsilocin compound according to claim 1 and a second component selected from (a) a serotonergic drug, (b) a purified psilocybin derivative, (c) one or two purified cannabinoids and (d) a purified terpene.”; relevant to WO2022079574 claim 6

Citation # 3 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2018/217829 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| CAAMTECH, INC. | Compositions and methods comprising a psilocybin derivative |

Link to document:

| Publication Date: | Filing Date: | Priority Date: |
|---|---|---|
| 16 Aug 2018 (16/08/2018) | 09 Feb 2018 (09/02/2018) | 09 Feb 2017 (09/02/2017) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
|---|---|---|---|
| | | | |

| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Claims 1, 14, 15, 22, 23, 24 Page: 14 | 33, 34, 36, 37, 38 |

Brief explanation of relevance:

From claim 1 “A composition, comprising: a first purified psilocybin derivative; wherein the first purified psilocybin derivative is chosen from [3-(2-Dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3 (2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, and 4-hydroxy-N,N,N trimethyltryptamine; and a second purified psilocybin derivative; wherein the second purified psilocybin derivative is chosen from [3-(2-Dimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N,N dimethyltryptamine, [3-(2-methylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxy-N methyltryptamine, [3-(aminoethyl)-1H-indol-4-yl] dihydrogen phosphate, 4-hydroxytryptamine, [3 (2-trimethylaminoethyl)-1H-indol-4-yl] dihydrogen phosphate, and 4-hydroxy-N,N,N trimethyltryptamine.”; relevant to WO2022079574 claims 36, 37, 38

From claim 14 “The composition of claim 1, comprising a first purified cannabinoid.”; relevant to WO2022079574 claims 36, 37, 38

From claim 15 “The composition of claim 14, wherein the first purified cannabinoid is chosen from THC, THCA, THCV, THCVA, CBC, CBCA, CBCV, CBCVA, CBD, CBDA, CBDV, CBDVA, CBG, CBGA, CBGV, or CBGVA.”; relevant to WO2022079574 claims 36, 37, 38

From claim 22 “The composition of claim 21, wherein the first purified psilocybin derivative and the first purified cannabinoid are present as a homogeneous mixture.”; relevant to WO2022079574 claims 33, 34

From claim 23 “A “The composition of claim 1, comprising a first purified terpene.”; relevant to WO2022079574 claims 33, 34

From claim 24 “The composition of claim 23, wherein the first purified terpene is chosen from bornyl acetate, alpha-bisabolol, borneol, camphene, camphor, carene, beta-caryophyllene, cedrene, cymene, elemene, eucalyptol, eudesmol, farnesene, fenchol, geraniol, guaiacol, humulene, isoborneol, limonene, linalool, menthol, beta-myrcene, nerolidol, ocimene, phellandrene, phytol, pinene, pulegone, sabinene, terpineol, terpinolene, or valencene.” relevant to WO2022079574 claims 33, 34

From page 14 “As used herein, the term "cannabinoid" refers to a compound from a class of molecules commonly found in plants of the genus cannabis and their derivatives. In one embodiment, the cannabinoid is endogenous to an animal, i.e., an endocannabinoid. In one embodiment, the cannabinoid is derived from a plant, e.g., a plant of genus cannabis, i.e., a phytocannabinoid.” relevant to WO2022079574 claims 37, 38

Citation # 4 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2020/319012 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| CAAMTECH, INC. | Compositions and methods comprising a psilocybin derivative |

Link to document:

| Publication Date: | Filing Date: | Priority Date: |
|---|---|---|
| 28 Jan 2021 (28/01/2021) | 23 Jul 2020 (23/07/2020) | 23 Jul 2019 (23/07/2019) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
|---|---|---|---|
| | | | |

| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Claims 1, 4, 5, 6 | 11, 12 |

Brief explanation of relevance:

From claim 1 “A composition comprising, consisting essentially of, or consisting of two purified toad secretion tryptamines chosen from the following 5-MeO-DMT, 5-MeO-NMT, 5-Methoxytryptamine, bufobutanoic Acid, bufobutarginine, bufoserotonin A, bufoserotonin B, bufoserotonin C, bufotenidine , bufotenin, bufotenin Oxide, bufotenine-O-Sulphate, bufoviridine, dET, dMT, n-Acetylserotonin, n'-Formylserotonin, n-Methylserotonin, o-Methylbufoviridine, serotonin, tryptamine, and bufopyramide or the salts of these toad secretion tryptamines.”; relevant to WO2022079574 claims 11, 12

From claim 4 “A pharmaceutical formulation comprising a composition of claim 1 or claim 2 and a pharmaceutically acceptable excipient, wherein the first purified toad secretion tryptamine and the second toad secretion tryptamine are each present in a therapeutically effective amount.”; relevant to WO2022079574 claims 11, 12

From claim 5 “A pharmaceutical composition of claim 4 further comprising a therapeutically effective amount of a serotonergic drug, a purified psilocybin derivative, a purified cannabinoid, or a purified terpene.”; relevant to WO2022079574 claims 11, 12

From claim 6 “A pharmaceutical composition of claim 4 or 5, wherein therapeutically amount of each tryptamine separately ranges from about 0.5 mg - about 200 mg, about 1 mg - about 100 mg, about 2 mg - about 50 mg, about 5 mg - about 25 mg or 25 mg”; relevant to WO2022079574 claims 11, 12

Citation # 5 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2021/101926 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| Stamets, Paul Edward | Tryptamine compositions for enhancing neurite outgrowth |

Link to document:

| Publication Date: | Filing Date: | Priority Date: |
|---|---|---|
| 27 May 2021 (27/05/2021) | 18 Nov 2020 (18/11/2020) | 19 Nov 2019 (19/11/2019) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
|---|---|---|---|
| | | | |

| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Claims 1, 4, 6, 7, 8 Pages 4, 19, 20, 24, 25, 37, 56 | See explanation |

Brief explanation of relevance:

Relevant to claims 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 35, 50, 51, 52, 53, 54, 55, 58, 59

From claim 1 “A composition comprising one or more tryptamines or in pure form or extracts or isolates from psilocybin containing mushrooms or combinations thereof combined with one or more

erinacines or hericenones in pure form, extracts or isolates from Hericium mushroom species, or combinations thereof."; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 35, 50, 53, 54, 55, 58, 59

From claim 4 "The composition of claim 1, wherein the composition further comprises one or more cannabinoids in pure form or extracts or isolates from Cannabis sativa, Cannabis indica, or Cannabis ruderalis."; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24, 27, 28, 35, 50, 52, 53, 54, 55, 58, 59

From claim 6 "The composition of claim 1, wherein the composition further comprises one or more phenethylamines or amphetamine in pure form or extracts or isolates from plants comprising thereof ."; relevant to WO2022079574 claims 17, 18, 19, 20, 21, 22, 23, 24

From claim 7 "The composition of claim 8, wherein the phenethylamines or amphetamines comprises 3,4,5-trimethoxyphenethylamine (Mescaline), 2,5-dimethoxy-4-methylamphetamine ( DOM), 2,5-dimethoxy-4-bromophenethylamine (2C-B), 2,5-dimethoxy-4- ethylphenethylamine (2C-E ), 2,5-dimethoxy-4-ethylthiophenethylamine (2C-T-2), 2,5- dimethoxy-4-propylthiophenethylamine ( 2C-T-7), p-methoxy-amphetamine (PMA), 2,4- dimethoxy-amphetamine (2,4-DMA), 3,4-dimethoxy-amphetamine (3,4-DMA), 3,4- methylenedioxy-amphetamine (MDA), 3-methoxy-4,5-methylendioxy-amphetamine (MMDA), 2-methoxy-3,4-methylendioxyamphetamine (MMDA-3a), 2-methoxy-4,5- methylendioxyamphetamine (MMDA-2), 3,4,5-trimethoxyamphetamine (TMA), 2,4,5-trimethoxyamphetamine (TMA-2), 2,5-dimethoxy-3,4-methylenedioxyamphetamine (DMMDA), 2,3-dimethoxy-4,5-methylenedioxyamphetamine (DMMDA-2), 2,3,4,5- tetramethoxyamphetamine ( TeMA), (R)-2,5-dimethoxy-4-iodoamphetamine, inter alia, pharmaceutically acceptable salts, hydrates, solvates, prodrugs, stereoisomers, or tautomers thereof."; relevant to WO2022079574 claim 18

From claim 8 "The composition of laim 1, wherein the composition further comprises one or more adversive compounds comprising niacin, ipecac, apomorphine, bittering agents (e.g. denatonium benzoate), capsaicin, capsacutin dihydrocapsaicin, nordihydrocapsaicin, homocapsaicin, homodihydrocapsaicin, capsaicinoids, gingerol, pipeline, isopiperine, zingerone, shogaol, vanillylamide derivatives, or combinations thereof."; relevant to WO2022079574 claims 25, 26

From page 4 "In another aspect, the composition further comprises one or more extracts or pure chemicals from other plant species comprising Bacopa species (Bacopa monnien), Gotu kola ( Centella asiatica), and Gingko (Gingko biloba, Ginger (Zingiber officinale), Holy Basil (Ocimum sanctum), Hu Zhang (Polygonum cuspidatum), Oregano (Origanum vulgare, Origanum onites), Rosemary (Rosmarinus officinalis, Rosmarinus eriocalyx, species in the genus Rosmarinus), Turmeric (Curcuma longa), Green Tea (Camellia sinensis), lavender (Lavandula spica and related species in the genus Lavandula), skullcap (Scutellaria lateriflora) oat straw (Avena sativa, Avena byzantina), Salvia divinorum, aka Diviner's Sage, Banisteriopsis caapi and Psychotria species, plants containing ibogaine (Tabemanthe iboga, Voacanga africana and Tabemaemontana undulate) , peyote (Lophophora williamsii), the seeds of morning glory (Ipomoea tricolor and related species) and Hawaiian baby wood rose (Argyreia nervosa), Acacia confusa, Acacia obtusifolia, Acacia simplicifolia, Desmanthus Illinoensis, or Cannabis (Cannabis sativa, C. indica and C. ruderalis) or combinations thereof."; relevant to WO2022079574 claims 20, 28

From page 19 "The compositions described herein may be administered orally, parenterally, by inhalation spray, topically, rectally, nasally, buccally, vaginally or via an implantable resevouir."; relevant to WO2022079574 claims 50, 51

From page 20 "The pharmaceutically acceptable composition described herein may be orally administered acceptable dosage form including, but not limited to, capsules, tablets, aqueous suspensions, or solutions."; relevant to WO2022079574 claim 52

CONTINUED IN FURTHER EXPLANATION PDF

Citation # 6 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2020/258806 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| Compass Pathfinder Limited | Methods of treating neurocognitive disorders, chronic pain and reducing inflammation |

| Link to document: |
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| Publication Date: | Filing Date: | Priority Date: |
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| 11 Nov 2021 (11/11/2021) | 17 Apr 2020 (17/04/2020) | 17 Apr 2019 (17/04/2019) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
|---|---|---|---|
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| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Pages 58, 150, 151, 153, 154 | 62, 67 |

Brief explanation of relevance:

From page 58 “In some embodiment, the method of treatment include treatment concurrently with one or more medications, including but not limited to selective-serotonin reuptake inhibitors, selective norepinephrine reuptake inhibitors, tricyclic antidepressants, and/or monoamine oxidase inhibitors. In some embodiments, the method include treatment such that subjects or patients take concomitant compounds or medications, including but not limited to benzodiazepines, cannabidiol ( CBD) and/or other cannabinoids (e.g., THC (tetrahydrocannabinol); THCA (tetrahydrocannabinolic acid); CBD (cannabidiol); CBDA (cannabidiolic acid); CBN (cannabinol); CBG (cannabigerol); CBC ( cannabichromene); CBL (cannabicyclol); CBV (cannabivarin); THCV (tetrahydrocannabivarin); CBDV (cannabidivarin); CBCV (cannabichromevarin); CBGV (cannabigerovarin); CBGM ( cannabigerol monomethyl ether); CBE (cannabielsoin); CBT (cannabicitran); and/or the like) magnesium, Levomefolic acid, e.g., for a period of time prior to, just prior to, and/or at the same time as receiving psilocybin.”; relevant to WO2022079574 claims 62, 68

From page 150 “1. A method of reducing inflammation in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of psilocybin or an active metabolite thereof.”; relevant to WO2022079574 claim 67

From page 151 “1. A method of reducing inflammation in a subject in need thereof, the method comprising administering to the subject a therapeutically effective amount of psilocybin or an active metabolite thereof.”; relevant to WO2022079574 claim 62

From page 151 “7. The method of any one of embodiments 1-6, wherein administration of the psilocybin reduces the level of at least one inflammatory biomarker or indicator in a biological sample of the subject.” ; relevant to WO2022079574 claims 62, 67

From page 151 “8. The method of embodiment 7, wherein the inflammatory biomarker is a pro inflammatory cytokine.” ; relevant to WO2022079574 claims 62, 67

From page 151 “9. The method of embodiment 8, wherein the pro-inflammatory cytokine is interleukin-1 (IL-1), tumor necrosis factor (TNF), gamma-interferon (IFN-y), IL-1p, IL-6, IL-10, IL-12, IL-18, granulocyte-macrophage colony stimulating factor (GMCSF), C-X-C chemokine ligand 1 ( CXCL1) or CXCL9.” ; relevant to WO2022079574 claims 62, 67

From page 153 “48. The method of any of embodiments 1-47, wherein the psilocybin is administered in a dosage form comprising a therapeutically effective amount of highly pure crystalline psilocybin in the form of Polymorph A, wherein the crystalline psilocybin comprises at least 90% by weight of Polymorph A.”; relevant to WO2022079574 claim 67

From page 154 “58. The method of any of embodiments 48-57, wherein the dosage form further comprises about 5 to 40 mg of the highly pure crystalline psilocybin.”; relevant to WO2022079574 claim 67

Citation # 7(Web page) (# uploaded documents:0):

| Author: | Title of Page Or Article: | |
|---|---|---|
| OurLucidDream | The Spiritual Matrix - Mushrooms & Cannabis | |
| URL: https://web.archive.org/web/20180428011658/https://erowid.org/experiences/exp.php?ID=111844 | | |
| DOI: | | |
| Name of Website: Erowid | Publication Date: 23 Apr 2018 (23/04/2018) | Retrieval Date: 28 Apr 2018 (28/04/2018) |
| Most relevant passages or drawings: Dose chart at top of page | Relevant to Claims: 10 | |
| Brief explanation of relevance: From dose chart at top of page: combination of 1.5g oral dried mushrooms; repeated smoked high THC cannabis; oral cannabidiol; relevant to WO2022079574 claim 10 | | |

Citation # 8 (Patent/utility model) (# uploaded documents: 0):

| Country code: | Publication number: | Document kind code: |
|---|---|---|
| WO | 2021/019023 | A1 |

| Patent Applicant/Patent Owner: | Title of invention: |
|---|---|
| The Beckley Foundation | Compounds for use in a method of treating or preventing neurological and/or psychiatric disorders |

Link to document:

| Publication Date: | Filing Date: | Priority Date: |
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| 04 Feb 2021 (04/02/2021) | 30 Jul 2020 (30/07/2020) | 01 Aug 2019 (01/08/2019) |

| Source of Abstract: | Accession number: | Publication Date of Abstract: | Retrieval Date of Abstract: |
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| Most relevant passages or drawings: | Relevant to Claims: |
|---|---|
| Claims 1, 2, 14 Page 11 | 13, 14 |

Brief explanation of relevance:

From claim 1 “Compound for use in a method of treating, preventing, reducing the symptoms of or slowing the progression of a neurological and/or psychiatric disorder, wherein a therapeutically effective amount of the compound is administered to a subject and the subject is provided with a cognitive training, and wherein the compound is an ergoline derivative or a pharmaceutically acceptable salt thereof.” relevant to WO2022079574 claims 13 and 14

From claim 2 “The compound for use according to claim 1 , wherein the compound is a lysergamide or a pharmaceutically acceptable salt thereof, preferably lysergic acid diethylamide (LSD) or a pharmaceutically acceptable salt thereof.” relevant to WO2022079574 claims 13, 14

From claim 14 “The compound for use according to any of claims 1 to 12 or the composition for use according to item 13, wherein the compound or the composition is administered concurrently with, before or after one or more therapeutic agents such as an acetylcholinesterase inhibitor, an NMDA receptor inhibitor, an antidepressant, an anxiolytic, a cannabinoid; or therapies such as transcranial magnetic stimulation (TMS), electroconvulsive therapy, deep brain stimulation, behavioral therapies such as mindfulness, acceptance and commitment therapy, cognitive behavioral therapy (CBT), biofeedback, and hypnosis.” relevant to WO2022079574 claims 13, 14

From page 11 “Examples of ergoline derivatives include lysergic acid 2-butyl amide, lysergic acid 2-pentyl amide, lysergic acid 3-pentyl amide, lysergic acid 2-hexyl amide, N,N-diallyl lysergamide, lysergic acid methyl isopropyl amide, lysergic acid diethylamide (LSD), 6-ethyl-6-nor-lysergic acid diethylamide, 6-propynyl-6-nor-lysergic acid diethylamide, 6-allyl-6-nor-lysergic acid diethylamide, 6 -propyl-6-nor-lysergic acid diethylamide, 6-cyclopropyl-6-nor-lysergic acid diethylamide, 6-butyl-6-nor-lysergic acid diethylamide, 1 -acetyl lysergic acid diethylamide, 1-propyonyl lysergic acid diethylamide, 1-propyonyl-6-ethyl-6-nor-lysergic acid diethylamide, N-morpholinyl lysergamide, N-pyrrolidyl lysergamide, N-piperidyl lysergamide, and lysergic acid 2,4-dimethylazetidine.” relevant to WO2022079574 claims 13, 14

## Citation # 9(Web page) (# uploaded documents:0):

| Author: | Title of Page Or Article: | | |
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| Mimwell | Garden Centre Psychedelic - LSA & Cannabis | | |
| URL: https://web.archive.org/web/20170623091324/https://erowid.org/experiences/exp.php?ID=110478 | | | |
| DOI: | | | |
| Name of Website: Erowid | Publication Date: 11 Jun 2017 (11/06/2017) | Retrieval Date: 23 Jun 2017 (23/06/2017) | |
| Most relevant passages or drawings: Dose chart at top of page | Relevant to Claims: 15, 16 | | |
| Brief explanation of relevance: From dose chart at top of page: combination of 1 smoked cannabis cigarette, 4.5 g sublingual ground/crushed morning glory seeds, ginger tea, and 3 bowls of smoked cannabis ; relevant to WO2022079574 claims 15, 16 | | | |

## Citation # 10(Periodical article) (# uploaded documents:1):

| Author: | Title of article: | Title of Periodical: | Publication Date: |
|---|---|---|---|
| Sylvia Mota de Oliveira, Elza Duijm, Hans ter Steege | Chloroplast genome of the nutmeg tree: Myristica fragrans Houtt. (Myristicace) | bioRxiv | 26 Feb 2020 (26/02/2020) |
| Issue Number of Periodical: Preprint | Publisher of Periodical: | Place of publication: | |
| Page range of article within periodical: | ISBN: | ISSN: | |
| DOI: 10.1101/2020.02.25.964122 | | | |
| Most relevant passages or drawings: Page 1 | Relevant to Claims: 21, 22, 23, 24 | | |
| Brief explanation of relevance: From page 1 “Myristica fragrans Houtt. is the most important species of the plant family Myristicaceae in the global market. The tree bears fruits containing oblong seeds, wrapped in a red aril. The world export volume of these seeds and arils, namely nutmeg and mace, attained a peak of 15,501 tons in 2011.”; relevant to WO2022079574 claims 21, 22, 23, 24 | | | |