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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
17/095,430	11/11/2020	Andrew R. CHADEAYNE	205.0001-US01	1807

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EXAMINER	
ANDERSON, JAMES D	

ART UNIT	PAPER NUMBER
1629	

NOTIFICATION DATE	DELIVERY MODE
11/07/2022	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 17/095,430	Applicant(s) CHADEAYNE, Andrew R.	
	Examiner JAMES D ANDERSON	Art Unit 1629	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 09/27/2022.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 19-32 is/are pending in the application.

5a) Of the above claim(s) 25 is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 19-24 and 26-32 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

Notice of Pre-AIA or AIA Status

The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Formal Matters

Claims 19-32 are pending.

Election/Restrictions

Applicant's election without traverse of psilocybin as the psilocybin derivative (Species Election I), escitalopram as the species of serotonergic drug (Species Election II), and depressive disorder as the species of psychological disorder (Species Election III) in the reply filed on 09/27/2022 is acknowledged.

Claim 25 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species of psilocybin derivative (Species Election I), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 09/27/2022.

In accordance with the above elections, claims 19-24 and 26-32 are presently under examination on their merits.

Priority

This application is a continuation in part of U.S. Application Number 15/893,562, filed February 9, 2018, which claims benefit under 35 U.S.C. 119(e) to U.S. Provisional Application

Number 62/457,123, filed February 9, 2017, U.S. Provisional Application Number 62/587,395, filed November 16, 2017, U.S. Provisional Application Number 62/587,410, filed November 16, 2017, U.S. Provisional Application Number 62/587,419, filed November 16, 2017, U.S. Provisional Application Number 62/587,431, filed November 16, 2017, U.S. Provisional Application Number 62/592,307, filed November 29, 2017, U.S. Provisional Application Number 62/592,320, filed November 29, 2017, U.S. Provisional Application Number 62/593,021, filed November 30, 2017, U.S. Provisional Application Number 62/595,321, filed December 6, 2017, U.S. Provisional Application Number 62/595,336, filed December 6, 2017, U.S. Provisional Application Number 62/598,767, filed December 14, 2017, U.S. Provisional Application Number 62/609,115, filed December 21, 2017, and U.S. Provisional Application Number 62/613,360, filed January 3, 2018.

Third-Party Submissions under 37 C.F.R. 1.290

The Third-Party Submissions under 37 C.F.R. 1.290 filed 11/18/2021 have been received, entered, and considered by the Examiner.

Information Disclosure Statement

Applicant's Information Disclosure Statements filed 12/14/2021, 12/17/2021, 03/31/2022, 05/09/2022, 09/08/2022, and 10/05/2022 have been received and entered into the present application. As reflected by the attached, completed copies of form PTO-1449, the Examiner has considered the cited references to the extent that they comply with the provisions of 37 C.F.R. §1.97, §1.98 and MPEP §609.

NPL Reference No. 3 (Carhart-Harris et al., 2016) cited in the IDS filed 05/09/2022 is lined-through as not being considered because the title of this citation is incorrect and Applicant did not provide a copy of the cited reference. Rather, Applicant provided a copy of a Carhart-Harris et al. article published in the journal of Neuropsychopharmacology in 2017, which they did not cite on any IDS.

Both of these references, however, are cited by the Examiner in this Office Action and in the attached PTO-892.

Claim Rejections - 35 USC § 112 – 2nd Paragraph

The following is a quotation of 35 U.S.C. 112(b):

> (B) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

"The primary purpose of this requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. A secondary purpose is to provide a clear measure of what applicants regard as the invention so that it can be determined whether the claimed invention meets all the criteria for patentability and whether the specification meets the criteria of 35 U.S.C. 112, first paragraph with respect to the claimed invention.", (see MPEP § 2173).

Claims 19-22 and 26-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "derivative" in claim 19, appearing in the expression "a purified psilocybin derivative", is a relative term which renders the claims indefinite. In particular, "derivative" does not particularly point out the degree or type of derivation that a given compound may have in relation to the parent compound (psilocybin) and still be considered a "psilocybin derivative" as intended by Applicant.

Applicant has failed to provide any specific definition for this term in the present specification. Lacking such a definition, the skilled artisan would not be reasonably apprised of the metes and bounds of the subject matter for which Applicant seeks patent protection. Rather, a subjective interpretation of the claimed language would be required. However, as such is deemed inconsistent with the tenor and express language of 35 U.S.C. § 112, second paragraph, the claims are deemed properly rejected.

Claim 27 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27 depends from claim 26, which recites the method of claim 19, comprising administering a combination of the first serotonergic drug and the purified psilocybin derivative. Claim 27 recites the method of claim 26, “comprising administering an excipient”.

It is unclear exactly what is intended to be administered by claim 27. Specifically, it is unclear if by “comprising administering an excipient” Applicant intends the “combination of the

first serotonergic drug and the purified psilocybin derivative" recited in claim 26 to be in a single composition comprising the first serotonergic drug, the purified psilocybin derivative, and an excipient. Alternatively, it is unclear if Applicant merely intends to further administer "an excipient" in a totally separate composition.

Claims 29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites that the purified psilocybin is crystalline. Claim 31 recites that the first serotonergic drug is a crystalline Selective Serotonin Reuptake Inhibitor. A person of ordinary skill in the art would understand that "crystalline" means the compound is a solid material arranged in a highly ordered microscopic structure, forming a crystal lattice that extends in all directions. It is unclear if claims 29 and 31 are therefore intended to limit the administering of the purified psilocybin and/or Selective Serotonin Reuptake Inhibitor to the solid, crystalline forms thereof or if Applicant intends that claims 29 and 31 merely require that the composition administered is made using a crystalline psilocybin derivative and/or crystalline Selective Serotonin Reuptake Inhibitor. The Specification does not aid in the interpretation of these claims because the disclosure mentions the word "crystalline" a single time in the context of a dried powder being composed of particles with a crystalline structure. See Specification at [0041].

Claim Rejections - 35 USC § 112 – 1st Paragraph, Written Description

The following is a quotation of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or

> with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), first paragraph:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 29 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. This is a written description rejection, rather than an enablement rejection under 35 U.S.C. 112, first paragraph. Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, 1st "Written Description" Requirement, Federal Register, Vol. 66, No. 4, pages 1099-1111, Friday January 5, 2001. This is a NEW MATTER rejection.

Newly added claim 29 recites that the purified psilocybin is crystalline. Newly added claim 31 recites that the first serotonergic drug is a crystalline Selective Serotonin Reuptake Inhibitor. These claims introduce New Matter.

The originally filed disclosure does not disclose or describe administering to a subject having a psychological disorder a crystalline psilocybin derivative and a crystalline Selective Serotonin Reuptake Inhibitor. The disclosure mentions the word "crystalline" a single time in [0041] – "[i]n one embodiment, a dried powder is composed of particles with a crystalline structure". Even here, such a disclosure is limited to "a dried powder" composed of "particles with a crystalline structure". In context, the disclosure goes on to state that "the compounds

disclosed herein are in a dried powder form, e.g., a psilocybin derivative, a cannabinoid, a terpene, etc.", but nowhere does Applicant disclose or describe crystalline forms of any compound of the invention, let alone a crystalline Selective Serotonin Reuptake Inhibitor.

A person of ordinary skill in the art would understand that "crystalline" means the compound is a solid material arranged in a highly ordered microscopic structure, forming a crystal lattice that extends in all directions. Nowhere does Applicant disclose or describe any crystalline form of any psilocybin derivative or Selective Serotonin Reuptake Inhibitor. For example, there is not a single example of any such crystalline forms characterized by melting point, XRPD, etc.

Vas-Cath Inc. V. Mahurkar, 19 USPQ2d 1111, states that Applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention, for purposes of the written description inquiry, is whatever is now claimed (see page 1117). The court in *Eli Lilly* held that an adequate written description of a claimed genus requires more than a generic statement of an invention's boundaries. *Regents of the University of California v. Eli Lilly & Co.*, 119 F3d at 1568. To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof. *Regents of the University of California v. Eli Lilly & Co.*, 119 F3d 1559, 1569, 43 USPQ2d 1398, 1406 (Fed. Cir. 1997).

Here, Applicant fails to provide any distinguishing characteristics whatsoever for any crystalline psilocybin derivative or crystalline Selective Serotonin Reuptake Inhibitor as presently recited in claims 29 and 31.

Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 U.S.C. 112 is severable from its enablement provision (see page 1115).

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-24 and 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over **GRIFFITHS ET AL.** (Journal of Psychopharmacology, 2016, vol. 30, no. 12, pages 1181-1197), **CARHART-HARRIS ET AL.** (Lancet Psychiatry, 2016, vol. 3, pages 619-627), **SHIROTA ET AL.** (J. Nat. Prod., 2003, vol. 66, pages 885-887), and **GB 2571696 B** (Published May 27, 2020; *Filed Oct. 9, 2017*) in view of **US 2005/0137255 A1** (Published June 23, 2005) and **CARHART-HARRIS ET AL.** (Neuropsychopharmacology, 2017, vol. 42, pages 2105-2113) (*Published Online May 17, 2017*).

The claims are drawn to treating a psychological disorder[1] comprising administering a serotonergic drug[2] and a purified psilocybin derivative[3] to a subject in need thereof.

As will be established by the following prior art, all of the claimed elements were known in the art prior to the filing of Applicant's application and it would have been *prima facie* obvious to a person of ordinary skill in the art to combine these elements to arrive at the claimed invention.

The Examiner first cites evidence of the common knowledge in the art that psilocybin was known to be therapeutically effective in the treatment of depression.

Griffiths *et al.* teach that psilocybin produces substantial and sustained decreases in depression and anxiety in patients with life-threatening cancer. *See* Abstract ("[t]he effects of psilocybin were studied in 51 cancer patients with life-threatening diagnoses and symptoms of depression and/or anxiety…[h]igh-dose psilocybin produced large decreases in clinician- and self-rated measures of depressed mood and anxiety, along with increases in quality of life, life meaning, and optimism, and decreases in death anxiety.") They cite Carhart-Harris *et al.*, 2016, for teaching that administration of psilocybin reduced depressive symptoms in patients with treatment-resistant depression. *See* p.1182, left column, 2nd full paragraph ("[a]lso relevant, a recent open-label pilot study in 12 patients with treatment-resistant depression showed marked reductions in depressive symptoms 1 week and 3 months after administration of 10 and 25 mg of psilocybin in two sessions separated by 7 days (Carhart-Harris et al., 2016).")

Carhart-Harris *et al.*, cited by Griffiths *et al. supra*, teach administering two oral doses of psilocybin (10 mg and 25 mg, 7 days apart) to patients with treatment-resistant depression. *See*

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[1] Applicant elected a depressive disorder as the species of psychological disorder.
[2] Applicant elected the SSRI escitalopram as the species of serotonergic drug.
[3] Applicant elected psilocybin as the species of psilocybin derivative.

Summary ("...12 patients (six men, six women) with moderate-to-severe, unipolar, treatment-resistant major depression received two oral doses of psilocybin (10 mg and 25 mg, 7 days apart) in a supportive setting.") They teach psilocybin was clinically effective in treating depression. *See* Summary ("[r]elative to baseline, depressive symptoms were markedly reduced 1 week...and 3 months...after high-dose treatment.") They conclude this study provides preliminary support for the safety and efficacy of psilocybin for treatment-resistant depression and motivates further trials. *See* Summary. Also see p.627, left column ("[p]silocybin has a novel pharmacological action in comparison with currently available treatments for depression (ie, 5-HT2A receptor agonism) and thus could constitute a useful addition to available therapies for the treatment of depression.")

While Griffiths *et al.* and Carhart-Harris *et al.* do not expressly disclose that the psilocybin administered therein was "purified", purified psilocybin, specifically highly purified crystalline psilocybin was known in the art. It would be obvious to a person of ordinary skill in the art that a therapeutic agent intended to be administered to subjects should be as pure as possible. Factors to be considered in determining whether a purified form of an old product is obvious over the prior art include whether the claimed chemical compound or composition has the same utility as closely related materials in the prior art, and whether the prior art suggests the particular form or structure of the claimed material or suitable methods of obtaining that form or structure. *In re Cofer*, 354 F.2d 664, 148 USPQ 268 (CCPA 1966). Here, Applicant does not even claim any particular form or structure of the claimed "purified psilocybin".

Shirota *et al.* teach large-scale synthesis of psilocybin that does not require chromatographic purification. *See* Abstract ("[t]he concise large-scale syntheses of psilocin (1) and psilocybin (2), the principal hallucinogenic constituents of "magic mushroom", were

achieved without chromatographic purification.") Specifically, they teach that obtained psilocybin as a white needle crystalline powder without any chromatographic purification (p.885, right column; p.887, paragraph bridging left and right columns).

GB '696 also teaches the large-scale synthesis production of psilocybin, specifically for use in medicine. *See* [0001] ("[t]his invention relates to the large-scale production of psilocybin for use in medicine.") They in fact specifically teach it for use in the treatment of treatment resistant depression ([0003]). Also see [0030] ("[i]t is yet a further object of the invention to formulate the psilocybin of the invention in a form suitable for administration to human subjects and use it in medicine…in the treatment of depression…particularly…drug resistant depression…".) Regarding claims 28-30, the psilocybin is a crystalline powder with a chemical purity of greater than 97%. *See* [0037] ("[t]he high purity, crystalline psilocybin…is a white to off white solid…has a chemical purity of greater than 97%...".) The psilocybin is provided in pharmaceutical formulation together with one or more excipients ([0049]). The pharmaceutical formulation is an oral dosage form such as a tablet or capsule ([0053]-[0054]). Summarizing the express teachings of GB '696, the Examiner refers to [0059]:

> **[0059]** In another embodiment there is provided a method of treating drug resistant depression comprising administering to a subject in need thereof an effective dose of a high purity, crystalline psilocybin - polymorph A.

The combined teachings of Griffiths et al., Carhart-Harris et al., Shirota et al., and GB '696 differ from the instant claims only in so far as they do not disclose administering purified psilocybin in combination with a serotonergic drug to treat depression. As evidenced by the following prior art, the SSRI escitalopram was a well-known, clinically effective anti-depressive agent, available in a highly purified crystalline form, at the time the application was filed.

US '255 teaches crystalline escitalopram hydrobromide, a novel crystalline form of escitalopram hydrobromide referred to as Form I (Abstract). It teaches citalopram is a well known antidepressant drug that has been widely sold for many years ([0003]). It teaches a pharmaceutical composition comprising crystalline escitalopram hydrobromide (such as Form I escitalopram hydrobromide) and, optionally, a pharmaceutically acceptable excipient ([0011]). It a method of treating a subject (such as a mammal (e.g., human)) having an escitalopram-treatable disorder comprising administering a therapeutically effective amount of a pharmaceutical composition comprising crystalline escitalopram hydrobromide or crystalline Form I of escitalopram hydrobromide ([0012]). It teaches escitalopram-treatable disorders include, *inter alia*, depression (e.g., major depression disorder and treatment of patients which failed to respond to initial treatment with conventional selective serotonin reuptake inhibitors (SSRIs) ([0034]). It teaches the crystalline escitalopram hydrobromide is 90-100% pure ([0050]).

The claimed invention, *i.e.*, treatment of depression comprising administering a first serotonergic drug (*e.g.*, the SSRI escitalopram) and a purified psilocybin derivative (*e.g.*, psilocybin), is the result of combining equivalents known for the same purpose, *i.e.*, combining two therapeutics having anti-depressant activity. See MPEP 2144.06. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980). A person of ordinary skill in the art would have had a reasonable expectation that administering purified psilocybin as taught in Griffiths et al., Carhart-Harris et al., Shirota et al., and GB '696 in combination with the SSRI escitalopram as taught in US '255 to a depressed subject would provide a therapeutic

benefit to the subject, e.g., reduced depressive symptoms. As both psilocybin and escitalopram were known to reduce depressive symptoms when administered individually, when combined they would also be expected to reduce depressive symptoms.

The Examiner acknowledges that the prior art questions whether administration of an SSRI should be discontinued before administering psilocybin to a depressed subject. Carhart-Harris *et al.* (2017) discuss the therapeutic potential of psychedelic drugs, specifically psilocybin in the treatment of depression. They specifically address the differential serotonergic actions of SSRIs and psychedelics in the treatment of depression (Figure 1). They acknowledge that a significant number of patients with treatment-resistant depression treated first line with either an SSRI or CBT fail to respond adequately (paragraph bridging p.2109-2110). They agree that treatment-resistant depression represents a valid point in the treatment pathway, where a single psychedelic intervention might find a place (*Id.*). Carhart-Harris ("RLC-H"), however, questions whether patients must wait until their depression is significantly stamped-in before psilocybin can be considered (*Id.*). They teach that it seems reasonable to ask whether early intervention with psilocybin could be prophylactic, while acknowledging "there is also the issue of SSRIs obstructing the potential therapeutic action of psilocybin" (*Id.*). This is, however, based on "anecdotal evidence" that psychedelic effects are largely attenuated by ongoing treatment with SSRIs (p.2110, left column, first full paragraph). They teach that any trial would "ideally" be conducted in patients withdrawn from such drugs for at least 2 weeks or so, but they also acknowledge that "this is not always straightforward" (*Id.*).

A totality of the evidence weighs in favor of obviousness of the claimed invention, despite the "anecdotal" evidence that SSRIs might potentially attenuate "psychedelic effects". Notably, Carhart-Harris *et al.* (2017) point to "psychedelic effects" being attenuated, not anti-

depressant effects. Further, the suggestion to administer both an SSRI and psilocybin in Carhart-Harris outweighs the largely unanswered question whether an SSRI would actually interfere with the anti-depressant activity of psilocybin. While they teach that "ideally" trials of psilocybin in patients being administered with another antidepressant such as an SSRI would be conducted in patients withdrawn from the antidepressant for at least 2 weeks, they admit that such might not be practical. Further, even if the evidence were in equipoise, equally balancing the obviousness of combining two known drugs having anti-depressant activity with the unanswered question whether administration of an SSRI would interfere with the anti-depressant activity of psilocybin, Applicant did not actually administer psilocybin and an SSRI to any subjects. In fact, Applicant's disclosure is purely hypothetical, having no working examples whatsoever. Thus, there is a preponderance of evidence showing that the combined teachings of the cited prior art would have provided at least a reasonable expectation of success in treating depression with a combination of escitalopram and psilocybin.

Conclusion

Applicant is requested to specifically point out the support for any amendments made to the disclosure in response to this Office action, including the claims (M.P.E.P. §§ 714.02 and 2163.06). In doing so, applicant is requested to refer to pages and line (or paragraph) numbers (if available) in the as-filed specification, not the published application. Due to the procedure outlined in M.P.E.P. § 2163.06 for interpreting claims, other art may be applicable under 35 U.S.C. § 102 or 35 U.S.C. § 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is reminded that MPEP §2001.06(b) clearly states that "[t]he individuals covered by 37 C.F.R. 1.56 have a duty to bring to the attention of the examiner, or other Office

official involved with the examination of a particular application, information within their knowledge as to other copending United States applications which are "material to patentability" of the application in question." See *Armour & Co. v. Swift & Co.*, 466 F.2d 767, 779, 175 USPQ 70, 79 (7th Cir. 1972). MPEP §2001.06(b) clearly indicates that "if a particular inventor has different applications pending in which similar subject matter but patentably indistinct claims are present that fact must be disclosed to the examiner of each of the involved applications." See *Dayco Prod. Inc. v. Total Containment, Inc.*, 329 F.3d 1358, 1365-69, 66 USPQ2d 1801, 1806-08 (Fed. Cir. 2003).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES D ANDERSON whose telephone number is (571)272-9038. The examiner can normally be reached on Monday-Friday, 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Lundgren can be reached on 571-272-5541. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James D. Anderson/
Primary Examiner, Art Unit 1629

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