

**2019-1659**

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In The  
**United States Court Of Appeals  
For The Federal Circuit**

**ESIP SERIES 2, LLC,**

*Appellant,*

**v.**

**PUZHEN LIFE USA, LLC,**

*Appellee.*

**ON APPEAL FROM PATENT AND TRADEMARK OFFICE –  
PATENT TRIAL AND APPEAL BOARD IN INTER PARTES REVIEW  
No. IPR2017-02197**

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**COMBINED PETITION FOR REHEARING AND  
REHEARING *EN BANC***

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UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

ESIP Series 2, LLC v. Puzhen Life USA, LLC

Case No. 19-1659

CERTIFICATE OF INTEREST

Counsel for the:

(petitioner)  (appellant)  (respondent)  (appellee)  (amicus)  (name of party)

certifies the following (use "None" if applicable; use extra sheets if necessary):

1. Full Name of Party Represented by me	2. Name of Real Party in interest (Please only include any real party in interest NOT identified in Question 3) represented by me is:	3. Parent corporations and publicly held companies that own 10% or more of stock in the party
ESIP Series 2, LLC	ESIP Series 1, LLC	None
	Earl V. Sevy	

4. The names of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are expected to appear in this court (and who have not or will not enter an appearance in this case) are:

None

FORM 9. Certificate of Interest

Form 9  
Rev. 10/17

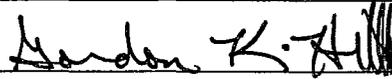
5. The title and number of any case known to counsel to be pending in this or any other court or agency that will directly affect or be directly affected by this court's decision in the pending appeal. See Fed. Cir. R. 47. 4(a)(5) and 47.5(b). (The parties should attach continuation pages as necessary).

Puzhen Life USA, LLC v. ESIP Series 2, LLC; IPR2017-02197  
(Patent Trial and Appeal Board, Sept. 28, 2017)

ESIP Series 1, LLC, et al. v. doTERRA International, LLC, et al.; Case No. 2:15-CV-0779 DB-DBP  
(U.S. Dist. Ct. Utah, Nov. 4, 2015)

Mar. 21, 2019

Date



Signature of counsel

Gordon K. Hill

Printed name of counsel

Please Note: All questions must be answered

cc: \_\_\_\_\_

Reset Fields

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No. 2019-1659 (Fed. Cir. May 19, 2020)..... 4, 7, 10

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U.S. Patent No. 9,415,130.....3

**STATEMENT OF COUNSEL**

Based on my professional judgment, I believe this appeal requires answers to the following precedent-setting question of exceptional importance:

- Whether a Notice of Allowability in a child application of a patent in an *Inter Partes* Review proceeding, facing the same prior art relied upon in the *Inter Partes* Review, is objective evidence that must be properly considered by the Board.

Dated: June 10, 2020

/s/  
\_\_\_\_\_  
Gordon K. Hill  
Attorney of Record for Appellant  
ESIP Series 2, LLC

**POINTS OF LAW AND FACT OVERLOOKED OR MISAPPREHENDED  
BY THE PANEL BELOW**

The following points of law and fact were overlooked or misapprehended by the panel below relative to ESIP's obviousness arguments:

1. The ESIP argument and evidence that the Board's finding that Sevy teaches separating droplets by passing the flow through an orifice in a wall is incorrect and unsupported by the evidence;
2. The ESIP argument and evidence that the Board's misapprehension of the teachings in Sevy resulted in the Board relying upon an legally and factually incorrect motivation to combine the Sevy prior art reference with other prior art references;
3. The ESIP argument and evidence that the Board's finding that Giroux teaches droplet separation out of a flow of air is incorrect and unsupported by the evidence; and
4. The ESIP argument and evidence that the Board specifically and improperly refused to consider the most objective evidence available related to obviousness, a Notice of Allowance in a related patent application directed to the same points of novelty.

**COMBINED PETITION FOR REHEARING AND REHEARING *EN BANC***

**I. INTRODUCTION AND STATEMENT OF THE CASE**

The panel’s decision dated May 19, 2020 incorrectly ruled that claims 1, 3 and 17 of U.S. Patent No. 9,415,130 were rendered obvious by Sevy in view of Cronenberg, and also by Sevy in view of Giroux.

Having the panel hold against ESIP is one thing, but characterizing ESIP’s case as based solely on its expert report and calling its expert “discredited” are not just factually false, but are gross misrepresentations of actual facts, and completely unwarranted. These errors are made more egregious by the Board and the panel misapprehending the teachings of the subject prior art while entering a finding that is physically, mechanically, and legally unsupported. A proper consideration of the evidence was required but absent.

**II. PROCEDURAL BACKGROUND**

Puzhen Life USA, LLC (“Puzhen”), filed a Petition (“Petition”) in IPR2017-02197 (“IPR”), asserting four separate grounds for invalidity of claims 1, 3 and 17 of the `130 Patent. ESIP Series 2, LLC (“ESIP”) filed a Patent Owner’s Preliminary Response. The Board instituted the IPR proceeding. ESIP filed a Patent Owner’s Response. Puzhen filed a Petitioner’s Reply. The Board held an oral hearing and issued a Final Written Decision (Appx1-63; “Decision”) holding

that two of the four asserted grounds for invalidity demonstrated that claims 1, 3 and 17 were obvious.

In its Opening Brief, ESIP argued that the Board misapprehended and misapplied the prior art combinations of Sevy in view of Cronenberg, and Sevy in view of Giroux. [Opening Br. at 27-36]. ESIP also argued that the Board refused to consider objective evidence it was required to consider, especially as to Sevy in view of Cronenberg. [Opening Br. at 22-27].

The Court affirmed the Board’s Decision, while the Board’s findings were not actually supported in the evidence cited by the Court. The Court likewise misapprehended and failed to correct the Board’s refusal to consider the most objective evidence presented to both. [*ESIP Series 2, LLC v. Puzhen Life USA, LLC*, No. 2019-1659, slip op. at 6-11 (Fed. Cir. May 19, 2020) (“Opinion”)].

### **III. ANALYSIS**

#### **A. STATEMENTS IN THE COURT’S OPINION ESTABLISH THAT SUBSTANTIVE EVIDENCE WAS OVERLOOKED**

With respect to the motivation to combine Sevy and Cronenberg, the Court states that “ESIP relies solely on the discredited testimony of Dr. Bell.” [Opinion at 9]. This statement establishes Court error with respect to two separate issues: (1) the Court overlooked the majority of ESIP’s evidence, including what must unequivocally be the most objective evidence before the Board and this Court; and

(2) the Court damaged Dr. Bell's professional reputation by pronouncing his testimony "discredited" without justification.

**1. A Notice of Allowance Directed to the Same Points of Novelty In a Related Patent Case Was Refused Consideration By the Board**

ESIP presented a Notice of Allowance from U.S. Patent Application Serial No. 15/297,542 ("`542 Application"), arguing that it provided the most objective evidence of non-obviousness. [Opening Br. at 22-25]. The `542 Application was a child application of the subject `130 Patent. *Id.* The `542 patent examiner specifically considered the very prior art cited and relied upon in the Petition. *Id.* Claims therein were not just "related" but substantively directed to the same points of novelty as the subject claims, and were allowed over that same prior art. *Id.* The patent examiner provided objective, highly relevant, evidence and reasoning why teachings of Sevy and Cronenberg could not render the claims obvious. *Id.*

The Board improperly refused to consider this objective evidence. The Court overlooked this objective evidence and did not address the failure by the Board to properly consider this objective, highly relevant evidence.

Moreover, ESIP argued that the plain language of Sevy does not support the Board's finding that "Sevy teaches separating some droplets from the mixed droplet-air flow by passing the flow through an orifice in a wall..." [Opening Br.

at 27-28] (citing Sevy's teachings) and [Appx25-26] (quoting the Board's Final Written Decision).

Thus, Dr. Bell's testimony is far from the only evidence ESIP relies upon to show that a PHOSITA would not have been motivated to combine Sevy and Cronenberg in the manner claimed in the '130 Patent. With respect to invalidity issues, prior art references are the most relevant evidence available. ESIP relies primarily upon statements from the prior art and the Notice of Allowance in the '542 Application. The Court's statement shows that the Court overlooked this evidence.

**2. The Court Improperly Describes Dr. Bell's Testimony as "Discredited"**

Again, the Court states that "ESIP relies solely on the discredited testimony of Dr. Bell." [Opinion at 9]. As noted by the Court, the Board found Dr. Bell's testimony "conclusory and unsupported" and thus "unhelpful and unpersuasive." [Opinion at 8]. This is not sufficient justification for the Court's pronouncement that Dr. Bell's testimony was "discredited." This error should be corrected.

Even if the Board chose not to rely on that report or found it unpersuasive, no findings "discredited" Dr. Bell's testimony. Stating that Dr. Bell's testimony was "discredited" implies a finding that underlying factual statements were wrong or misrepresented, but no party nor tribunal alleged such. Disagreeing with an expert opinion does not justify the Court "discrediting" the author.

The Court's pronouncement that Dr. Bell's testimony was "discredited" effectively precludes Dr. Bell from acting as an expert witness in the future and damages his reputation. The Court's pronouncement may also result in unforeseen consequences for Dr. Bell with respect to other business activities. That is a steep price to pay because the Board found his testimony "unhelpful and unpersuasive," especially since the Board's determination is erroneous, having ignored previous pages of supporting analysis of that specific opinion. [Opening Br. at 32-33].

This cavalier targeting of a professional reputation by use of such loaded pejoratives is not worthy of the decorum of this Court. The Court should edit its opinion to remove the improperly derogatory language, and assure that no online or printed publications continue this error.

**3. Teachings Of Prior Art References and Other Evidence Were Improperly Overlooked By the Opinion Citing Solely to a Concluding Statement in ESIP's Expert Report and Even Ignoring Support In the Report**

With respect to the teachings of Giroux, the Court states that "ESIP cites only the testimony of its expert, Dr. Bell." [Opinion at 8]. This statement establishes that the Court overlooked ESIP's evidence from the Giroux prior art reference. ESIP argued that the plain language of Giroux does not support the Board's finding that Giroux discloses a "vortex" that separates larger droplets from the air flow. [Opening Br. at 34-35].

For example, Giroux teaches that “[a]s the particles are passed through the particle dispersion chamber 85, they are swirled into a vortex and emerge from the chamber 85 while still in the vortex into the nasal cavity and the paranasal sinuses.” *Id.* Giroux teaches that the larger and smaller droplets stay in the vortex, albeit separate portions of the vortex, and are delivered to Giroux’s user. A reasonable person would not read the teachings of Giroux and conclude that Giroux’s vortex separates larger droplets from the vortex, or air flow.

Thus, Giroux and the Notice of Allowance establish that Dr. Bell’s testimony is not the only evidence ESIP relied upon to show that a PHOSITA would not have been motivated to combine Sevy and Giroux. With respect to invalidity issues, prior art references are the most relevant evidence available. ESIP relies primarily upon statements taken from the prior art and statements from the patent examiner in a closely related case.

The Court’s statements that ESIP relies solely upon the testimony of Dr. Bell are demonstrably inaccurate. The other evidence relied upon by ESIP should be considered by the Court upon rehearing.

**B. THE COURT MISAPPREHENDS THE TEACHINGS OF THE PRIOR ART**

As stated previously, ESIP argued that the plain language of Sevy does not support the Board’s finding that “Sevy teaches separating some droplets from the mixed droplet-air flow by passing the flow through an orifice in a wall...”

[Opening Br. at 27-28] (citing Sevy's teachings) and [Appx25-26] (quoting the Board's Final Written Decision).

**1. Sevy Does Not Teach Separating Droplets By Passing the Flow Through an Orifice**

A reasonable person cannot read Sevy to teach separation as a flow of air passes through an orifice in a wall. Sevy teaches that "the separator plate 98 passes the flow of air from the atomizer 16 through apertures 99 therein. Droplets that cannot move with the air flow, typically because they have too large a size and mass will not be able to quickly turn to follow the flow of air, and will strike the walls of the opening 100 or the separator plate 98." [Opening Br. at 28].

Sevy teaches that separation occurs when the larger droplets strike the walls 100 of the lower chamber around the atomizer or its top cap (the separator plate 98) when the size and mass of those droplets make them too heavy to remain entrained in the flow of air. That escape of large droplets out of the air flow happens **before** the flow passes **through** Sevy's aperture. They cannot escape within the aperture 99.

Figures 7 and 9 of Sevy, with their text, make indisputable that the **walls of the opening 100 (Figure 7) are the walls 121 (Figure 9) of the chamber 120 acting as a separator 120 below the separator plate 98. They are not any part of the aperture 99 in the separator plate 98.** The Board misapprehended Sevy,

and the panel simply repeated that misconception. Both tribunals misapprehend the teachings of Sevy.

Sevy's aperture defines a region of empty space, a hole. That empty space does not cause changes in the direction of a flow of air. It does not discriminate between sizes of droplets leaving it. Sevy's aperture does not function as a separator. When ESIP made this point, the Court disagreed. [Opinion at 7]. Thus, the Court made a finding that is physically, mechanically impossible, and unsupported by evidence.

**2. Puzhen's Expert Report Does Not Support the Board Decision Nor the Court Opinion**

The Decision misapprehends the expert report of Puzhen as well. Puzhen's expert, Mr. Smith, testified that the separator plate (98) in Sevy "segregate[s]" atomizer droplets. *Id.* The separator plate in Sevy is not Sevy's aperture.<sup>1</sup> The Board's finding, affirmed by the Court, stands contradicted by Puzhen's expert and the teachings in the Sevy prior art reference.

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<sup>1</sup> To the extent Sevy's aperture may be argued to be part of Sevy's separator plate, the teachings of Sevy establish that Sevy's aperture does not provide the same function as Sevy's plate. Also, the substitution articulated by the Board is replacing Sevy's aperture with Cronenberg's helical passageway; Sevy's separator plate is not part of that substitution because it is necessarily alleged to be "the wall" in the subject patent claim.

**3. Motivation To Combine Is Misapprehended and Misapplied In the Board Decision and the Court Opinion**

The Court misapprehends ESIP's argument and evidence regarding a lack of motivation to combine Sevy and Cronenberg. The Opinion states that the Board found "that a skilled artisan would have been motivated to replace the aperture in Sevy with the arcuate passageway of Cronenberg" and "that a skilled artisan would have been motivated to substitute one method [of separation] for the other." [Opinion at 9]. In sum, the Board found that substituting Cronenberg's arcuate passageway in place of Sevy's aperture was obvious because both components achieved the same result, separation of droplets.

As shown, Sevy does not teach that passing the flow of air through its aperture accomplishes separation of droplets. Accordingly, Sevy's aperture and Cronenberg's helical passageway – the components the Board equates as substitutes - do not achieve the same result. [Opening Br. at 27-29]. The Board's finding regarding motivation to combine contradicts the explicit teachings in the prior art.

Similarly, because Sevy does not teach that passing the flow of air through its aperture causes separation of droplets, a PHOSITA could not find motivation to replace the aperture in Sevy with the helical shaped baffle of Giroux, as erroneously recited in the findings of the Board. [Appx44].

The Court's misapprehension of Sevy led to fatal flaws in essentially "adopting" the Board's findings without reference to the factual record. The Court overlooked substantive, objective evidence relating to the issue of obviousness and the Court should consider that evidence in a rehearing.

#### **IV. CONCLUSION**

ESIP is not requesting that this Court rehear the issue of whether Puzhen's IPR Petition identified all real parties in interest, nor whether the IPR should have been instituted.

For the forgoing reasons, ESIP requests this Court grant this Petition for Rehearing and/or Rehearing *En Banc* of the patent validity decision.

Dated: June 10, 2020

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*Attorneys for Appellant,  
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**CERTIFICATE OF COMPLIANCE**

This petition complies with the type-volume limitation of Fed. Cir. R. 35(b)(2). This petition contains 2,365 words (including diagrams and images), excluding the parts of the petition exempted by Fed. R. App. P. 35(c)(2)

The petition complies with the typeface requirements of Fed. R. App. P. 32(a)(5) or Federal Circuit Rule 28.1 and the type style requirements of Fed. R. App. P. 32(a)(6) because this petition has been prepared in a proportionally-spaced typeface using Microsoft Word 2010 in 14-point Times New Roman font.

/s/ \_\_\_\_\_  
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# **ADDENDUM**

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**ADDENDUM**

Opinion  
entered May 19, 2020 .....ADD - 1

United States Court of Appeals  
for the Federal Circuit

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ESIP SERIES 2, LLC,  
*Appellant*

v.

PUZHEN LIFE USA, LLC,  
*Appellee*

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2019-1659

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Appeal from the United States Patent and Trademark  
Office, Patent Trial and Appeal Board in No. IPR2017-  
02197.

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Decided: May 19, 2020

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GORDON K. HILL, Pate Baird, Salt Lake City, UT, ar-  
gued for appellant. Also argued by ALMA JOHN PATE.

MARK A. MILLER, Dorsey & Whitney LLP, Salt Lake  
City, UT, argued for appellee. Also represented by ELLIOT  
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Smith, Washington, DC.

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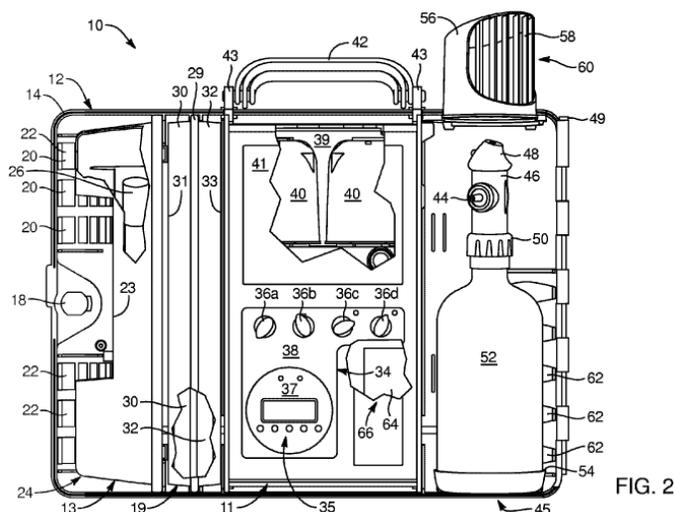
Before LOURIE, REYNA, and HUGHES, *Circuit Judges*.  
REYNA, *Circuit Judge*.

ESIP Series 2, LLC, appeals a decision of the Patent Trial and Appeal Board that certain claims of ESIP’s patent are invalid as obvious. ESIP also contends that the Board should not have instituted inter partes review because appellee Puzhen failed to identify “all real parties in interest” as required by 35 U.S.C. § 312. We find no error in the Board’s obviousness determination, and the Board’s decision to institute inter partes review is final and non-appealable. We affirm.

BACKGROUND

A. The ’130 Patent

ESIP Series 2, LLC, (“ESIP”) owns U.S. Patent No. 9,415,130 (“the ’130 patent”), which relates to “a novel system and method for combining germicidal protection and aromatic diffusion in enclosed habitable spaces.” ’130 patent at 1:7–10. Products of this type are commonly known as “vaporizers” or “diffusers.” Figure 2 of the ’130 patent, shown below, depicts an embodiment of the claimed invention with a diffusion module (45) contained within a housing (12).



The ’130 patent states that it overcomes “a number of problems” in the prior art that stem from the diffusion of



Claim 1, reproduced below, illustrates the claimed invention:

1. A method for introducing a scent into breathable air, the method comprising;

providing a system comprising a reservoir, eductor, and separator operably connected to one another;

providing a liquid constituting an aromatic substance selected by an operator for the scent to be introduced into the breathable air;

drawing a first portion of the liquid from the reservoir by the eductor passing a flow of air;

entraining the first portion of the liquid into the flow;

forming droplets of the first portion by at least one of restricting an area through which the flow passes and the entraining;

***separating*** out a second distribution of the droplets by passing the flow through a wall between a first chamber and a second chamber, the flow path spiraling axially and circumferentially, simultaneously and continuously, ***through an arcuate channel formed through the wall***; and passing a first distribution of the droplets out of the separator into the breathable air.

'130 patent at 23:22–41 (emphases added).

#### B. IPR Proceeding

Puzhen Life USA, LLC, (“Puzhen”) filed a petition for inter partes review of claims 1, 3, and 17 of the '130 patent.

Puzhen challenged the claims as obvious (i) in view of Sevy<sup>1</sup> and Cronenberg<sup>2</sup>; and (ii) in view of Sevy and Giroux<sup>3</sup>.

Sevy relates to “novel systems and methods for integrating air supplies, reservoirs and atomizers into an integrated system.” Sevy at 1:6–8. Sevy relies on “direction change and momentum of impact to further comminute [] droplets into a more finely atomized mist.” *Id.* at 2:13–19. Sevy teaches that larger droplets are separated from the mist because they “cannot move with the airflow, typically because . . . they will not be able to quickly turn to follow the flow of air.” *Id.* at 8:64–9:4.

Cronenberg relates to “[a] separator adapted for use as part of a fluid dispenser system for supplying inhalable fluids.” Cronenberg at Abstract. Cronenberg teaches that the “separator is adapted to be positioned within the fluid dispenser system so that the mixture of liquid and gas passes along [a] tortuous passageway,” causing “the larger droplets of liquid [to be] removed from the mixture.” *Id.* at 2:48–55. In this way, the separator “achieve[s] the desired vapor and avoid[s] the presence of liquid droplets in the gas and liquid mixture.” *Id.* at 1:20–22.

Giroux relates to “a novel integrated nebulizer and particle dispersion chamber” that “provides for delivery of a vortical flow of nebulized particles to the nostrils.” Giroux at Abstract. To achieve the size and velocity characteristics that are important for effective drug delivery, Giroux teaches forcing the particles to flow through a “baffle” that is in a “generally serpentine or helix shape,” which “create[s] motion of the nebulized particles in a vortex as they exit the dispersion chamber.” *Id.* at 13:32–42.

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<sup>1</sup> U.S. Patent No. 7,878,418 (“Sevy”).

<sup>2</sup> U.S. Patent No. 4,243,396 (“Cronenberg”).

<sup>3</sup> U.S. Patent No. 8,001,963 (“Giroux”).

Based on the prior art and expert testimony, the Board determined that the challenged claims would have been obvious in view of Sevy and Cronenberg and in view of Sevy and Giroux. J.A. 40, 47. The Board found that Sevy discloses every element of the challenged claims except for the “arcuate channel” limitation of the “separating” claim element. J.A. 23–31. The Board found that both Cronenberg and Giroux disclose the “arcuate channel” limitation. The Board explained:

[N]either reference, considered by itself, teaches forming an arcuate channel through a wall for the purpose of separating liquid droplets out of a mixed air-droplet flow. Sevy’s separator passes flow through a wall, but not using an arcuate passageway. Cronenberg [and Giroux] teach[] accomplishing the same type of separation using an arcuate passageway, but not one passing through a wall.

J.A. 27, 43. The Board determined that a skilled artisan would have been motivated to combine the teachings of each reference with Sevy to arrive at the claimed invention.

The Board also addressed in its final written decision ESIP’s argument that Puzhen’s petition was barred from institution because Puzhen failed to identify “all real parties in interest” as required by 35 U.S.C. § 312(a)(2). J.A. 849. According to ESIP, Puzhen’s petition failed to identify two real parties in interest: doTERRA International, LLC, and Puzhen Life Co., Ltd. J.A. 5. After considering ESIP’s asserted evidence, the Board determined that neither party was a real party in interest within the meaning of 35 U.S.C. § 312(a)(2) and that Puzhen’s petition was not barred from institution. J.A. 11, 14.

#### ANALYSIS

Obviousness is a question of law with underlying factual findings relating to the scope and content of the prior art; differences between the prior art and the claims at

issue; the level of ordinary skill in the pertinent art; the presence or absence of a motivation to combine or modify prior art with a reasonable expectation of success; and any objective indicia of non-obviousness. *Persion Pharms. LLC v. Alvogen Malta Operations Ltd.*, 945 F.3d 1184, 1189 (Fed. Cir. 2019). We review factual determinations for substantial evidence. *Id.* Substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” *Consol. Edison Co. v. NLRB*, 305 U.S. 197, 229 (1938). We review the Board’s legal conclusions de novo. *Velandar v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003).

#### A. Obviousness

ESIP challenges four fact findings underlying the Board’s conclusion that the ’130 patent claims would have been obvious. We determine that all four fact findings are supported by substantial evidence, and we affirm the Board’s conclusion.

First, with respect to the “separating” claim limitation, ESIP challenges the Board’s finding that Sevy teaches separating droplets by passing the flow through an orifice in a wall. Appellant Br. 27–28. ESIP argues that Sevy’s orifice—aperture 99, shown in Figure 7 below—“does not function as a separator” because it “cannot discriminate with regard to the size of a particle passing through it. It’s a hole.” *Id.* at 28. We disagree. In support of its finding, the Board relied on Sevy’s disclosure that “separator plate 98 passes the flow of air from the atomizer 16 through apertures 99” and that droplets with “too large a size and mass will not be able to quickly turn to follow the flow of air, and will strike the walls of the opening 100 or the separator plate 98.” J.A. 26 (citing Sevy at 8:64–9:2). The Board also relied on the testimony of Puzhen’s expert, Mr. Smith, who testified that the separator plate (98) in Sevy “segregate[s]” atomizer droplets. *Id.* (citing J.A. 634–635).

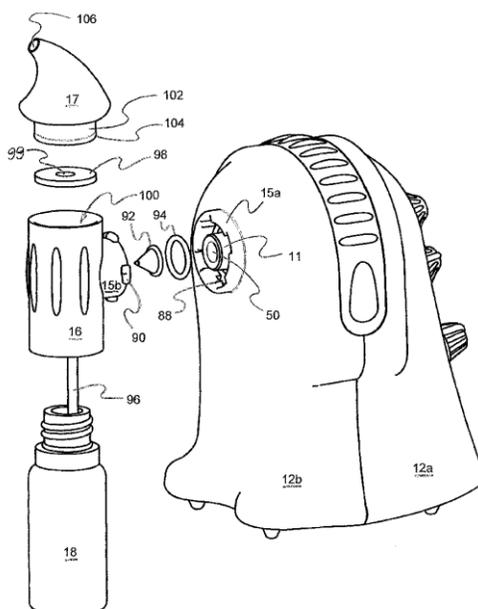


FIG-7

We find no error in the Board’s decision to credit the opinion of one expert over another, and we do not reweigh evidence on appeal. *Impax Labs. Inc. v. Lannett Holdings Inc.*, 893 F.3d 1372, 1382 (Fed. Cir. 2018). Substantial evidence supports the Board’s finding that Sevy teaches separating droplets by passing the flow through an orifice in a wall.

Second, also with respect to the “separating” claim limitation, ESIP challenges the Board’s finding that Giroux discloses a “vortex” that separates large droplets from the air flow. ESIP argues that the circulation of particles through Giroux’s “vortex” “does not result in the larger droplets being separated from the vortex or separated from the air flow.” Appellant Br. at 35. For support, ESIP cites only the testimony of its expert, Dr. Bell, which the Board found to be “conclusory and unsupported” and thus “unhelpful and unpersuasive.” J.A. 29. In support of its finding that Giroux’s vortex separates large droplets from the

airflow, the Board relied on the expert testimony of Mr. Smith and Giroux’s teaching that the swirl of droplets in Giroux’s “vortex” “sends the larger droplets to the outside rings and . . . keeps the smaller [] droplets in the air stream for a longer period of time.” J.A. 43 (quoting Giroux at 8:60–62, 12:33–37; J.A. 643–644). Substantial evidence therefore supports the Board’s finding that Giroux teaches a vortex that separates larger droplets from the air flow. *See Impax*, 893 F.3d at 1382.

Third, ESIP challenges the Board’s finding that a skilled artisan would have been motivated to replace the aperture in Sevy with the arcuate passageway of Cronenberg. The Board found that Sevy and Cronenberg teach two alternative methods for achieving the separation of droplets from the mixed droplet-air flow, and that a skilled artisan would have been motivated to substitute one method for the other. J.A. 26–27. ESIP argues that Sevy and Cronenberg “achieve different results” and that combination of these two references would require “substantial reconstruction.” Appellant Br. 28–29. Again, ESIP relies solely on the discredited testimony of Dr. Bell. In reaching its finding, the Board relied on the disclosures of Sevy and Cronenberg, and the expert testimony of Mr. Smith, who testified that a skilled artisan “would [have] replace[d] [Sevy’s] aperture(s) in plate 98 with the helical pathway of Cronenberg.” J.A. 26 (citing Sevy at 8:64–9:2; Cronenberg at 3:12–21, 5:37–43; J.A. 634–635). Substantial evidence therefore supports the Board’s finding that a skilled artisan would be motivated to combine Sevy and Cronenberg. *See Impax*, 893 F.3d at 1382.

Fourth, ESIP challenges the Board’s finding that a skilled artisan would have been motivated to combine Sevy with Giroux. Appellant Br. 36. ESIP asserts that the Board “failed to articulate the required explication as to why Giroux’s helical baffle would be ‘formed through a wall’ as required by the subject claims.” *Id.* We disagree. The Board found that “both Sevy and Giroux teach

methods for removing large droplets from [the] mixture of air and liquid droplets,” and thus a skilled artisan would have been motivated to “substitute a channel defined by a helical baffle, as taught by Giroux, for the straight orifice in Sevy’s plate.” J.A. 44–45. In reaching that determination, the Board relied on the disclosures of Sevy and Giroux, and the expert testimony of Mr. Smith, who testified that a skilled artisan “would have had a reason to combine the teachings of Sevy with those of Giroux.” *Id.* (citing Sevy at 8:64–9:2; Giroux at 8:60–62, 12:33–37; J.A. 643–644). Substantial evidence therefore supports the Board’s finding that a skilled artisan would be motivated to combine Sevy and Giroux. *See Impax*, 893 F.3d at 1382.

ESIP also argues that the Board committed numerous legal errors when rendering its obviousness determination. For example, ESIP claims that the Board legally erred by failing to expressly define the applicable level of ordinary skill in the art. Appellant Br. 19–20. Yet ESIP fails to make the requisite showing that there are “any meaningful differences” between the parties proposed definitions or that “the outcome of [the] case would have been different based on which definition the Board used.” *Genzyme Therapeutic Prod. Ltd. P’ship v. Biomarin Pharm. Inc.*, 825 F.3d 1360, 1371–72 (Fed. Cir. 2016). Similarly, ESIP challenges the Board’s construction of “wall,” yet ESIP “fail[s] to clearly explain what result would occur if this court adopted [the appellant’s] proposed claim construction[.]” *Fresenius USA, Inc. v. Baxter Int’l, Inc.*, 582 F.3d 1288, 1304 (Fed. Cir. 2009) (holding that the appellant “gave this court little guidance and cited no record support regarding why a modified claim construction would affect the [judgment]. For that reason alone, we may decline to consider Fresenius’s claim construction arguments.”). We find ESIP’s arguments unpersuasive.

Because the Board’s obviousness conclusion is not legally erroneous and the fact findings are supported by substantial evidence, we affirm the determination that

claims 1, 3, and 17 would have been obvious in view of Sevy and Cronenberg and in view of Sevy and Giroux.

#### B. Real Party in Interest

Under 35 U.S.C. § 312(a), a petition “may be considered only if” it includes: (1) payment of fees; (2) identification of all real parties in interest; (3) identification “with particularity” of each claim challenged, the grounds of each challenge, and the supporting evidence; (4) other information the Director requires by regulation; and (5) copies of these documents for the patent owner. ESIP argues that Puzhen failed to identify all “real parties in interest” and thus the Board erred when it considered institution of inter partes review. For the reasons stated below, the Board’s § 312(a)(2) real-party-in-interest determination is final and non-appealable.

In *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131 (2016), the Supreme Court held that this Court is precluded from reviewing Board decisions concerning the “particularity” requirement under § 312(a)(3). The Court explained that § 314(d) bars appellate review of “questions that are closely tied to the application and interpretation of statutes related to the Patent Office’s decision to initiate inter partes review.” *Id.* at 2141–42. The Court further explained that “where a patent holder grounds its claim in a statute closely related to that decision to institute inter partes review, § 314(d) bars judicial review.” *Id.*

More recently, in *Thryv, Inc v. Click-To-Call Techs., LP*, 140 S. Ct. 1367 (2020), the Supreme Court held that § 314(d) also precludes judicial review of the agency’s decision whether to apply the one-year time bar set forth in § 315(b). The Court explained that “§ 315(b)’s time limitation is integral to, indeed a condition on, institution,” and that “a contention that a petition fails under § 315(b) is a contention that the agency should have refused ‘to institute an inter partes review.’” *Id.* at 1373–74 (quoting 35 U.S.C. § 314(d)). The Court concluded that a challenge to a

petition's timeliness under § 315(b) raises "an ordinary dispute about the application of" an institution-related statute and is barred from appellate review by § 314(d). *Id.*

In view of *Cuozzo* and *Click-to-Call*, we find no principled reason why preclusion of judicial review under § 314(d) would not extend to a Board decision concerning the "real parties in interest" requirement of § 312(a)(2). ESIP's contention that the Board failed to comply with § 312(a)(2) is "a contention that the agency should have refused to institute an inter partes review." See *Click-To-Call*, 140 S. Ct. at 1373–74. Indeed, ESIP expressly argues that the agency should have refused to institute inter partes review because of Puzhen's failure to identify all "real parties in interest." *E.g.*, Appellant Br. at 5 ("[I]t was improper for the Board to 'consider' the IPR Petition and institute an IPR."). Accordingly, we hold that ESIP's challenge to the Board's "real parties in interest" determination "raises 'an ordinary dispute about the application of an institution-related statute,'" and that § 314(d) precludes our review of that determination. *Click-To-Call*, 140 S. Ct. at 1373–74 (quoting *Cuozzo*, 136 S. Ct. at 2141–42).

#### CONCLUSION

We have considered ESIP's other arguments and find them unpersuasive. We affirm the Board's determination that claims 1, 3, and 17 of the '130 patent are invalid as obvious.

#### AFFIRMED

**CERTIFICATE OF FILING AND SERVICE**

I hereby certify that, on June 10, 2020, I electronically filed the foregoing with the Clerk of Court using the CM/ECF System, which will send notice of such filing to all registered users.

I further certify that, upon acceptance and request from the Court, the required paper copies of the foregoing will be deposited with United Parcel Service for delivery to the Clerk, UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT, 717 Madison Place, N.W., Washington, D.C. 20439. The necessary filing and service were performed in accordance with the instructions given to me by counsel in this case.

/s/ Denise Dulong

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