

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PADAGIS ISRAEL PHARMACEUTICALS LIMITED;
PADAGIS US LLC; AND PADAGIS, LLC,
Petitioner,

v.

BAUSCH HEALTH IRELAND LIMITED,
Patent Owner.

IPR2023-01114
Patent 11,311,482 B2

Before SHERIDAN K. SNEDDEN, TINA E. HULSE, and
MICHAEL A. VALEK, *Administrative Patent Judges*.

VALEK, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

Padagis Israel Pharmaceuticals Ltd., Padagis US LLC, and Padagis, LLC (collectively, “Petitioner”) filed a Petition (Paper 1, “Pet.”), seeking *inter partes* review of claims 1–11 of U.S. Patent No. 11,311,482 B2 (Ex. 1001, “the ’482 patent”). Bausch Health Ireland Limited (“Patent Owner”) filed a Preliminary Response. Paper 14 (“Prelim. Resp.”).¹

Among other arguments in its Preliminary Response, Patent Owner asks the Board to apply discretion to deny institution under 35 U.S.C. § 325(d). *Id.* at 31–51.

Section 325(d) provides discretion to not institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. For the reasons explained below, we exercise discretion under 35 U.S.C. § 325(d) to deny institution of *inter partes* review.

II. BACKGROUND

A. *Real Parties in Interest*

Petitioner identifies itself as real parties in interest. Pet. 85.

Patent Owner identifies Bausch Health Ireland Limited and Bausch Health US, LLC as real parties in interest and further notes that both entities “are subsidiaries of Bausch Health Companies Inc.” Paper 17, 2.

B. *Related Matters*

The parties identify the following related district court litigation: *Bausch Health Ireland Ltd. et al. v. Padagis Israel Pharms. Ltd. et al.*, No. 22-4248 (MCA) (AME) (D.N.J.). Pet. 85; Paper 7, 2.

¹ Paper 14 is Patent Owner’s *Corrected* Preliminary Response, which was filed with our authorization (Ex. 3001, 2) and replaces the previously filed Preliminary Response (Paper 9).

C. The '482 Patent

The '482 patent describes “[t]opical pharmaceutical compositions [that] include tazarotene or a pharmaceutically acceptable salt of tazarotenic acid and an oil-in-water emulsion vehicle that forms a lotion” to treat skin diseases, such as acne vulgaris. Ex. 1001, Abstr.

Table 2 of the '482 patent, reproduced below, describes an exemplary tazarotene lotion referred to as “Composition A.” Ex. 1001, 5:35–58.

TABLE 2

Some Emulsion Compositions of the Present Invention for Treating Acne					
Ingredient	Function	Concentration (wt %)			
		Range 1	Range 2	Range 3	Composition A
Tazarotene	Retinoid	0.02-0.049	0.03-0.049	0.04-0.049	0.045
Diethyl sebacate	Liquid Oil & Solvent	1-5	2-4	2.5-3.5	2.97
Light mineral oil	Liquid Oil & Co-Solvent	5-15	5-10	7.5-8.5	8.03
Sorbitan monooleate	Surfactant/Emulsifying Agent	0.01-1	0.02-0.5	0.05-0.2	0.1
Sorbitol solution, 70%	Humectant	5-15	7-12	10-11	10.7
Methyl paraben	Antimicrobial Preservative ⁽¹⁾	0.05-0.3	0.1-0.3	0.1-0.2	0.17
Propyl paraben	Antimicrobial Preservative ⁽¹⁾	0.01-0.1	0.01-0.05	0.02-0.04	0.03
Edetate disodium dihydrate	Chelating Agent ⁽¹⁾	0.02-0.1	0.02-0.7	0.03-0.06	0.05
Carbomer copolymer type B (e.g., Pemulen™ TR-1)	Emulsifying Agent	0.1-1	0.2-0.7	0.3-0.5	0.4
Carbomer homopolymer type A (e.g., Carbomer 981)	Thickener	0.2-1.5	0.3-1	0.5-0.7	0.6
Sodium hydroxide, 10% Solution	pH-adjusting Agent ⁽¹⁾	q.s. to pH of 5.5 ± 0.5	q.s. to pH of 5.5 ± 0.5	q.s. to pH of 5.5 ± 0.5	q.s. to pH of 5.5 ± 0.5
Purified water	Carrier	q.s. to 100	q.s. to 100	q.s. to 100	q.s. to 100

Note:

⁽¹⁾These ingredients are broadly classified as Pharmaceutical Aids.

As shown in the table above, Composition A contains 0.045 wt% tazarotene as the only active ingredient in an oil-in-water emulsion comprising a dicarboxylic acid ester (diethyl sebacate) and mineral oil in an oil phase, water and a carbomer homopolymer (Carbomer 981) in an aqueous phase, and a polymeric emulsifier (Pemulen™ TR-1). *See also id.* at 5:11–12 (explaining that diethyl sebacate is a diacid carboxylic acid ester).

The Specification describes a “[a] double blind, multi-site, randomized clinical study” comparing Composition A lotion; Tazorac®

0.1% cream, i.e., a commercially available cream containing 0.1% tazarotene as an active ingredient; and placebo for the treatment of acne vulgaris. *See* Ex. 1001, 7:42–10:28. The study included “210 patients” who received “either Composition A lotion, Tazorac® 0.1% cream, Placebo Lotion, [or] Placebo Cream at a 2:2:1:1 randomization.” *Id.* at 7:42–49. The test compositions “were applied to the affected area once daily for twelve weeks.” *Id.* at 7:57–59.

Table 6 of the Specification, reproduced below, shows “treatment % success” based on “Evaluator’s Global Severity Score (EGSS)”² after twelve weeks in this study. *Id.* at 8:60–9:15.

TABLE 6			
Treatment % Success (ITT) at 12 Weeks			
	Combined Placebo N = 69	Composition A N = 69	Tazorac ® 0.1% Cream N = 72
EGSS - Clear or Almost Clear Inflammatory Lesions	10.1%	18.8%	16.7%
Absolute Change	-14.0	-18.1	-16.8
% Change	-51.41%	-63.75%	-59.99%
Non-inflammatory Lesions			
Absolute Change	-13.1	-21.6	-20.3
% Change	-35.18%	-56.86%	-54.09%

The results in Table 6 show that Composition A lotion had a higher % success (18.8%) as compared to Tazorac® 0.1% cream (16.7%) and placebo

² According to the Specification, efficacy was monitored at each study visit by an investigator “assessing the treatable area, determining the [EGSS], and determining the grade of improvement,” using EGSS grades ranging from 0 (clear) to 4 (severe). Ex. 1001, 7:60–65. “For EGSS, to be judged as a treatment success, subjects had to show at least two-grade improvement from baseline and EGSS score equating to ‘clear’ or ‘almost clear’.” *Id.* at 8:61–64.

(10.1%). *Id.* The results in Table 7 similarly show a higher % success for Composition A “on a per-protocol basis for EGSS.” *Id.* at 9:16–32.

Table 8 of the Specification, reproduced below, “reports treatment emergent adverse event characteristics” from the same study. Ex. 1001, 9:40–55.

TABLE 8			
Treatment Emergent Adverse Event Characteristics			
	Combined Placebo	Composition A	Tazorac ® 0.1% Cream
% Subjects Reporting Any Adverse Event	13.4%	14.7%	26.8%
% Subjects Reporting Any Serious Adverse Event	0%	0%	0%
% Subjects Discontinued Study Due to Adverse Event	0%	0%	1.4%

The results in Table 8 show that 14.7% of patients treated with Composition A lotion reported an adverse event as compared to 26.8% of patients treated with Tazorac® 0.1% cream. *Id.* The Specification summarizes these results, stating they show “that Composition A, containing less than half of the tazarotene active ingredient, had a numerically better efficacy than the Tazorac® 0.1% Cream” and “the adverse event profile was lower for Composition A than for Tazorac® 0.1% Cream.” *Id.* at 9:56–60.

D. Illustrative Claims

The Petition challenges claims 1–11. Claims 1 and 11 are the only independent claims and illustrative for purposes of this decision. Claim 1 reads as follows:

1. A method of treating acne vulgaris, the method comprising topically applying a pharmaceutical composition once per day to an affected area of a body of a subject suffering from acne vulgaris, wherein:

the composition comprises tazarotene at a concentration of about 0.045 percent by weight of the composition as a sole active pharmaceutical ingredient[;]

the composition is an oil-in-water emulsion lotion comprising an oil phase and an aqueous phase;

the oil phase comprises a dicarboxylic acid ester and a mineral oil at a total concentration of 10-12 percent by weight of the composition;

the aqueous phase comprises water and a carbomer homopolymer, wherein the concentration of the carbomer homopolymer is 0.5-0.7 percent by weight of the composition; and

the composition further comprises a polymeric emulsifier at a concentration of 0.3-0.5 percent by weight of the composition.

Ex. 1001, 14:37–55. Claim 11 is similar, but drawn even more specifically to exemplary Composition A. It reads as follows:

11. A method of treating acne vulgaris, the method comprising topically applying a pharmaceutical composition to an affected area of a subject suffering from acne vulgaris; wherein the composition consists essentially of:

- 0.045 weight % tazarotene;
- 2.97 weight % diethyl sebacate;
- 8.03 weight % light mineral oil;
- 0.1 weight % sorbitan monoleate;
- 10.7 weight % sorbitol solution, 70%;
- 0.17 weight % methylparaben;
- 0.03 weight % propylparaben;
- 0.05 weight % edetate disodium dihydrate;
- 0.4 weight % carbomer copolymer type B;
- 0.6 weight % carbomer homopolymer type A;
- sodium hydroxide, q.s. to pH 5.5±0.5; and
- purified water, q.s. to 100 weight %.

Id. at 16:7–23; Ex. 1002, 1 (certificate of correction).

E. Asserted Grounds of Unpatentability

Petitioner asserts the following grounds of unpatentability:

Claim(s) Challenged	35 U.S.C. § ³	Reference(s)/Basis
1–11	103	WO '001, ⁴ Anderson ⁵
1–11	103	WO '001, Kircik ⁶
1–11	103	WO '001, Chim ⁷
1–11	103	WO '001, Anderson, Shalita ⁸
1–11	103	'824 Publication, ⁹ Tazorac® Label ¹⁰
1–11	103	'824 Publication, Tazorac® Label, Anderson
1–11	103	'824 Publication, Anderson, IDP-118 ¹¹
1–11	103	'824 Publication, Kircik, IDP-118

³ The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), included revisions to 35 U.S.C. § 103 that became effective before the filing of the applications to which the '482 patent claims priority. Therefore, we apply the AIA version of the statute.

⁴ WO 2016/205001 A1, published Dec. 22, 2016 (Ex. 1007) (“WO '001”).

⁵ Anderson et al., *Topical Tazarotene in Acne Vulgaris: Treatment Approaches*, Supplement to CUTIS 74 (4S) 16–21 (2004) (Ex. 1008) (“Anderson”).

⁶ Leon H. Kircik, *Tretinoin Microsphere Gel Pump 0.04% Versus Tazarotene Cream 0.05% in the Treatment of Mild-to-Moderate Facial Acne Vulgaris*, 8(7) Journal of Drugs in Dermatology 650–654 (2009) (Ex. 1009) (“Kircik”).

⁷ Christine Chim, *Acne Vulgaris*, ACSAP 2016 Book 2 (Dermatologic Care) 7–22 (2016) (Ex. 1010) (“Chim”).

⁸ Shalita et al., *Tazarotene Gel is Safe and Effective in the Treatment of Acne Vulgaris: A Multicenter, Double-Blind, Vehicle-Controlled Study*, CUTIS 63(6) 349–354 (1999) (Ex. 1011) (“Shalita”).

⁹ US 2012/0129824 A1, published May 24, 2012 (Ex. 1012) (“'824 publication”).

¹⁰ Prescribing Information for Tazorac® Cream (Dec. 2013) (Ex. 1013) (“Tazorac® Label”).

¹¹ ClinicalTrials.gov, *A Phase 2 Dosing Ranging, Evaluator-Blinded Study to Evaluate the Safety of Topical IDP-118* (Jan. 24, 2014) (Ex. 1014) (“IDP-118”).

Claim(s) Challenged	35 U.S.C. § ³	Reference(s)/Basis
1–11	103	'824 Publication, Chim, IDP-118

In support of these grounds, Petitioner relies on the declarations of Dr. Robert Schwartz (Ex. 1003) and Dr. Narasimha Murthy (Ex. 1005).

The Petition's first four grounds rely on WO '001, which Petitioner asserts “discloses *every* component of the tazarotene composition described and claimed in the '482 patent” but for treating psoriasis rather than acne. Pet. 7, 39–40 (relying on the embodiments in Tables 3 and 4 of WO '001). The Petition relies on Anderson, Kircik, Chim, and Shalita for their teachings regarding the use of tazarotene, including at a 0.05 weight % concentration, to treat acne vulgaris. *See id.* at 36–45, 56 (discussing Anderson, Kircik, and Chim as applied to claims 1 and 11), 47–59 (discussing Shalita). For each of these grounds, Petitioner asserts that it would have been obvious to combine these teachings with WO '001 to arrive at the claimed methods. *Id.* We refer to Grounds 1–4 collectively as the “WO '001 Grounds.”

Grounds 5–9 are similar, but rely on the '824 Publication instead of WO '001. Petitioner contends that the '824 Publication discloses “a lotion vehicle that is *identical* to the composition disclosed and claimed in the '482 patent, with the exception of the active ingredient – 0.045% tazarotene.” Pet. 59–60. According to Petitioner, it would have been obvious “to replace the active ingredient in the '824 publication's formulations with 0.045% tazarotene” and use the resulting composition to treat acne vulgaris in view of the other references asserted in these grounds. *See id.* at 60–63 (discussing Tazorac® Label), 75–76 (discussing Tazorac® Label and

Anderson), 76–81 (discussing IDP-118 and Anderson, Kircik, or Chim). We refer to these grounds collectively as the “’824 Publication Grounds.”

III. DISCRETION UNDER 35 U.S.C. § 325(d)

The parties dispute whether we should exercise discretion to deny the Petition under 35 U.S.C. § 325(d). Pet. 30–34; Prelim. Resp. 1–2, 31–51.

Petitioner contends that “Anderson, Chim, and the IDP-118 Study . . . were not cited during prosecution of the ’482 patent, and thus the same art or arguments presented herein were not previously before the Patent Office.” Pet. 31. Petitioner further asserts that “the Examiner was not informed of the decade-plus of off-label use of compositions comprising 0.05% tazarotene for the treatment of acne” that “directly undermines Patent Owner’s prosecution argument regarding unexpected results and the alleged lack of motivation and reasonable expectation of success for using compositions comprising 0.045% tazarotene for treating acne.” *Id.* at 34.

In addition, Petitioner points to the prosecution of claims reciting similar subject matter in U.S. Patent Application Nos. 16/179,576 (the “’576 application”) and 17/366,871 (the “’871 application”). Pet. 12–16. Petitioner asserts that the claims of these applications recite compositions “similar” to those applied “in the method claims of the ’482 patent.” *Id.* at 12, 15.

According to Petitioner, the fact that the ’576 application claims were finally rejected, while the ’871 application claims were allowed, demonstrates “inconsistent patentability decisions reached by different examiners on the same evidence and arguments” that “highlight[] the substantial questions regarding the patentability of the tazarotene formulation claimed in the ’482 patent and the need for the Board to address the patentability issues raised in the Petition.” *Id.* at 16.

Patent Owner disagrees, urging that the Petition “presents the same or substantially the same prior art and arguments as those previously considered by the” Office. Prelim. Resp. at 1, 31–33, 46 (emphasis omitted) (quoting *Advanced Bionics, LLC v. MED-EL Electromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8, 10, 17–18 (Feb. 13, 2020) (precedential) (“*Advanced Bionics*”). According to Patent Owner, “[i]t is common ground that only three of the eight references raised in the Petition were not expressly before the Examiner.” *Id.* at 33. Patent Owner asserts that “each of the three references are cumulative of . . . art that was before the Examiner.” *Id.* at 34–37. Patent Owner further asserts that both the WO ’001 Grounds and ’824 Publication Grounds “are substantially the same as arguments made and overcome” during prosecution of the ’482 patent claims and the related claims in the ’871 application. *Id.* at 40–46. According to Patent Owner, Petitioner has not demonstrated material error in the Office’s prior consideration of these references and arguments. *Id.* at 46–51.

Patent Owner also challenges Petitioner’s contention that the Examiners of the ’576 and ’871 applications reached “inconsistent patentability decisions.” Prelim. Resp. 16 (quoting Pet. 16). Patent Owner agrees that the ’576 and ’871 applications recite compositions similar to those applied in the ’482 patent’s method claims (*see id.* at 10–11 (comparing claims)) and that the Examiners of those applications entered “the same final rejection based on the same art” (*id.* at 16). However, according to Patent Owner, “[t]he difference was that in the ’871 [a]pplication, the applicants continued to prosecute the application through

issuance, while in the '576 [a]pplication the applicant[s] simply elected to abandon the application.” *Id.* (citing Ex. 1047, 1; Ex. 2003, 2).

A. Legal Standard

Section 325(d) provides that the Director may elect not to institute a proceeding if the challenge to the patent is based on matters previously presented to the Office. The statute states, in pertinent part, “[i]n determining whether to institute . . . , the Director may take into account whether, and reject the petition . . . because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d).

The question of whether a petition presents art or arguments that are “the same or substantially the same” as art or arguments previously presented to the Office is a factual inquiry, which may be resolved by reference to the factors set forth in *Becton, Dickinson*.¹² The precedential section of that decision sets forth the following non-exclusive factors for consideration:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination;
- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art;

¹² *Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (“*Becton, Dickinson*”).

- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, 17–18.

Advanced Bionics sets out a two-part framework for analyzing these factors. In the first part, we consider factors (a), (b), and (d) to determine whether the art or arguments presented in the petition are the same or substantially the same as those previously presented to the Office. *Advanced Bionics*, 8–10. “If, after review of factors (a), (b), and (d), it is determined that the same or substantially the same art or arguments previously were presented to the Office,” then we advance to the second part of the analysis to determine “whether the petitioner has demonstrated a material error by the Office” in view of factors (c), (e), and (f). *Id.* *Advanced Bionics* instructs that “[i]f reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.” *Id.* at 9.

B. Advanced Bionics Part One

As explained below, we determine that both substantially the same art and substantially the same arguments asserted in the Petition were previously presented to the Office.

Beginning with *Becton, Dickinson* factors (a) and (b), it is undisputed that five of the eight references cited in Petitioner’s grounds, i.e., WO ’001, the ’824 Publication, Kircik, Shalita, and the Tazorac® Label, were before the Examiner during prosecution of the ’482 patent. Pet. 31; Prelim. Resp. 33. To the extent Petitioner contends we “should not deny institution based on the citation of the ’824 Publication, Shalita, and Kircik on an IDS” or

because “the Examiner never applied them” in a rejection, we disagree. *See* Pet. 32. “Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS).” *Advanced Bionics*, 7–8. Thus, all five of these references were previously presented.

Turning to the other three references, we agree with Patent Owner that Anderson and Chim are cumulative of Kircik and Shalita. Prelim. Resp. 34–37. Petitioner relies on Anderson and Chim for their teaching that topical compositions containing 0.05% tazarotene are effective to treat acne. *See* Pet. 41–42 (Anderson), 44–45 (Chim). However, Petitioner contends the same teachings are found in Kircik and Shalita. *See id.* at 43–44 (explaining that Kircik discloses a “clinical study” showing “the efficacy of a 0.05% tazarotene composition in the topical treatment of acne”), 57 (explaining that Shalita discloses a “study of tazarotene 0.1% and 0.05% gel in the treatment of acne” showing that “0.05% tazarotene gel was significantly more effective than treatment with vehicle gel in terms of both reduction in lesion count and treatment success rate”). Petitioner’s attempt to distinguish Anderson and Chim by urging they show “real-world clinical practice” and therefore “evidence that prior art use of 0.05% tazarotene for treating acne was not limited to experimental clinical studies,” such as those in Kircik and Shalita is unavailing. *Id.* at 31. The challenged claims draw no such distinction, nor does Petitioner persuasively explain why a person of ordinary skill in the art (“POSITA”) would view Anderson’s and Chim’s teachings to be any more pertinent than Kircik and Shalita’s teachings as they relate to the motivation to combine and reasonable expectation of success allegations in the Petition. *See id.*

We also agree with Patent Owner that IDP-118 is cumulative of WO '001. Prelim. Resp. 37. The Petition relies on IDP-118 for its disclosure of “a phase II clinical study for psoriasis that includes a 0.01% halobetasol propionate/0.045% tazarotene combination lotion, 0.01% halobetasol propionate lotion and **0.045% tazarotene lotion.**” Pet. 32 (citing Ex. 1004, Arms and Interventions). However, WO '001 discloses a “clinical study in psoriasis patients” comparing the same set of lotions. Ex. 1007 ¶ 61 (Table 4).¹³ Indeed, there appears to be no substantive difference between the study described in WO '001 and that in IDP-118. *See* Prelim. Resp. 37 (asserting that “WO '001 discloses all of the same information and significantly more detail regarding the same IDP-118 clinical study, including the concentrations of the active ingredients and a list of the excipients and their exact concentrations for each of the four compositions used in the study”). Petitioner does not identify, much less persuasively argue, any reason why the disclosure it cites in IDP-118 is not cumulative of the information in WO '001.

Turning to *Becton, Dickinson* factor (d), we observe that the Office has previously considered arguments concerning obviousness rejections involving both WO '001 and the '824 Publication that are substantially the same as the arguments presented in the Petition. First, during prosecution of the '482 patent, the Examiner rejected the then pending claims as obvious over WO '001 and Donello.¹⁴ Ex. 1002, 136–143, 213–217 (referring to

¹³ In this study, “IDP-118” refers to the lotion containing 0.01% halobetasol propionate/0.045% tazarotene in a lotion vehicle, which is compared to a placebo (lotion vehicle only), 0.01% halopetasol propionate only in the same lotion vehicle, and 0.045% tazarotene only in the same lotion vehicle. *Id.*

¹⁴ US 2012/0328670 A1, published Dec. 27, 2012 (Ex. 1032) (“Donello”).

WO '001 as “Dow”). Like the WO '001 Grounds in the Petition, the rejection was premised on the embodiments in WO '001's tables with the Examiner finding that WO '001 teaches the recited tazarotene composition, but not the use of that composition to treat acne. *See id.* at 147, 216 (observing WO '001 “does not teach acne”). The Examiner relied on Donello for its teaching of tazarotene to treat acne, stating that it would have been obvious to use tazarotene “as the sole agent in the treatment of acne” because it was known to be “effective in the treatment of skin disorders (e.g., psoriasis and acne).” *Id.* In this regard, the Examiner's reliance on Donello mirrored Petitioner's reliance on Anderson, Kircik, Chim and Shalita in the Petition.

The applicants overcame the Examiner's WO '011 rejection by filing an amendment and arguing that data in the Specification for “Composition A” evidenced unexpected results. Ex. 1002, 74–86. This amendment narrowed claim 1 in several respects, including to recite tazarotene at “about 0.045 percent by weight” as the “sole active pharmaceutical ingredient” and to specify certain components of the lotion vehicle.¹⁵ Ex. 1002 at 75. The applicants argued that amended claims were either the same as (claim 11) or “closely embraced” (claim 1) Composition A in the Specification, which they urged showed surprisingly higher efficacy and tolerability as compared to 0.1% Tazorac® cream. *See id.* at 81–84 (asserting that the results in Tables 6 and 8 of the Specification show “a 31.8% improvement for Composition A, as compared to TAZORAC, over the combined placebo

¹⁵ Claims 13 and 40 in the amendment correspond to claims 1 and 11 in the '482 patent. *Compare* Ex. 1002, 75 (claim 13), 77–78 (claim 40), *with* Ex. 1001, 14:37–55 (claim 1), 16:7–22 (claim 11). The amendment did not alter claim 11.

population” in terms of treatment success and “a 90.3 (i.e., a **90.3% improvement**) in adverse events over the combined placebo population for Composition A, as compared to TAZORAC”). The Examiner responded by allowing the claims. *Id.* at 49. In the reasons for allowance, the Examiner stated that the amendment “to recite tazarotene as a sole active agent renders the obviousness rejection moot . . . [b]ecause [WO ’011] teaches that tazarotene and halobetasol is synergistic[] . . . there is no motivation to administer tazarotene alone.” *Id.* at 55.

Similar unexpected results evidence and arguments were presented during prosecution of a claim drawn to related subject matter in the ’871 application. The ’871 application issued as U.S. Patent No. 11,679,116 (the “’116 patent”). Ex. 2002. The parties agree that claim 1 of the ’116 patent recites a 0.045% by weight tazarotene pharmaceutical composition similar to that recited for use in the methods of claims 1 and 11 of the ’482 patent. *See* Pet. 15; Prelim. Resp. 10–11. Indeed, Patent Owner shows that the composition recited in claim 1 of the ’116 patent is the same composition administered in the method of claim 11 of the ’482 patent. Prelim. Resp. 11 (showing side-by-side comparison of the two claims); *see also* Ex. 2002, 24:20–59 (’116 patent claim 1). That is, both claims recite a pharmaceutical composition containing the particular ingredients and amounts in the Specification’s Composition A. *Id.* However, claim 1 of the ’116 patent is broader in that it does not limit the use of that composition to a method of treating acne vulgaris. *Id.* Thus, while the ’871 application claims priority to a different set of applications than the ’482 patent,¹⁶ its prosecution

¹⁶ Compare Ex. 2002, codes (60, 63) with Ex. 1001, codes (60, 63). According to the parties, the ’871 application is related to the application in

addressed the patentability of a claim drawn to similar, overlapping subject matter.

During prosecution of the '871 application, the then-pending claims were rejected as obvious over the '824 publication in view of the Tazorac® Label¹⁷ and a third reference, Bershad. Ex. 1047, 156–162, 191–94. Like the '824 Publication Grounds in the Petition, this rejection was premised on the '824 publication's disclosure of a topical formulation, i.e., a lotion vehicle, containing the inactive ingredients recited in Patent Owner's claims with the Tazorac® Label's teaching of 0.05 and 0.1% tazarotene creams.¹⁸ See Ex. 1047 at 156–158, 191–192. The rejection stated that a skilled artisan would have been motivated to formulate tazarotene starting at the 0.05% concentration disclosed in the Tazorac® Label using the '824 publication's lotion vehicle because “said formulation is art-recognized for psoriasis-treating agents and reduces local and systemic side effects.” *Id.* at 158159, 193. Bershad was additionally cited as evidence that it would have been obvious to reduce the tazarotene concentration in the resulting composition to 0.045 wt%. *Id.* at 158–159, 162, 192–194. Again, this is similar to Petitioner's alleged motivation for combining the '824 publication with the

WO '011 and “shares a substantively identical specification.” Pet. 15–16, n.4; Prelim. Resp. 10.

¹⁷ The rejection cites WO 2012/087443, referring to it as “Dow,” which the parties agree is the PCT publication of the '824 publication and therefore contains the same disclosure. See Pet. 15 n.3; Prelim. Resp. 12, 45 n.4.

¹⁸ The Tazorac® Label discloses two concentrations of “TAZORAC® (tazarotene) Cream,” i.e., 0.1% and 0.05%. Ex. 1013, 2. The 0.1% cream is indicated for treating psoriasis and acne, whereas the 0.05% cream is indicated only for psoriasis. *Id.*; see Ex. 1003 ¶¶ 33–34 (noting that “the 0.05% concentration of tazarotene was not approved the indication of acne”).

Tazorac® Label and the other references in the '824 Publication Grounds. *See* Pet. 63 (urging that “the '824 publication teaches that its lotion vehicle improves the penetration of the active ingredient into the patient’s skin, which allows for the compositions to have the same or better efficacy even when the concentration of the active ingredient is greatly reduced”).

The applicants overcame the obviousness rejection based on the '824 publication by arguing unexpected results based on the same data from Tables 6 and 8 of the present Specification. *See* Ex. 1047, 65–68. More specifically, the applicants relied on a declaration under 37 C.F.R. § 1.132 (“Dow Declaration”) citing the data in Tables 6 and 8. *Id.* at 70–75. According to the Dow Declaration, this data show that “higher tolerability” and “substantially higher . . . improvement over placebo” for Composition A as compared to 0.1% Tazorac® cream. *Id.* (¶¶ 7–8, 10–11). Dr. Dow further testified that clinical trial data for FDA approval of 0.1 % and 0.05 % Tazorac® cream “show that 0.05% TAZORAC was as irritating as 0.1% TAZORAC in key parameters directed to skin-related adverse events” and therefore “the unexpected reduction in side effects of the claimed 0.045% tazarotene lotion vs. TAZORAC 0.1% is translatable to TAZORAC 0.05%.” *Id.* (¶ 9). The Examiner of the '871 application credited the applicants’ unexpected results showing, finding the “argument and data in the declaration . . . convincing to overcome a prima facie case” because “the unexpected results of the presently claimed 0.045% wt. tazarotene lotion are commensurate in scope and represent a significant and practical advantage over the prior art.” *Id.* at 13–14. Those findings are directly applicable to the instant method claims, which recite the use of the same or a substantially similar composition to that recited in claim 1 of the '116 patent.

Accordingly, substantially the same art and arguments in the Petition have previously been presented and considered by the Office.

C. Advanced Bionics Part Two

Having determined that the first step of the *Advanced Bionics* is met, we consider whether Petitioner has shown that the Office materially erred. *Becton, Dickinson* factor (c) focuses on the record previously developed by the Office. *Advanced Bionics*, 10. If the record, “is not well developed or silent, then a petitioner may show the Office erred by overlooking something.” *Id.* However, “if the alleged error is a disagreement with a specific finding of record by the Office, then ordinarily the petitioner’s required showing of material error must overcome persuasively that specific finding of record.” *Id.* at 10–11. The record here falls squarely within the second category. As noted above, the applicants overcame obviousness rejections based on substantially the same art combinations in both the WO ’011 and ’824 Publication Grounds. Moreover, during prosecution of the ’871 application, the Examiner specifically credited Patent Owner’s unexpected results showing. Below we address Petitioner’s arguments that the Office erred in doing so and determine, after full consideration of the record, that Petitioner has not persuasively shown the required material error.

As an initial matter, Petitioner’s argument that “inconsistent patentability decisions [were] reached by different examiners on the same evidence and arguments” during prosecution of related subject matter in the ’871 application (issued as the ’116 patent) and the ’576 application (not allowed) is not persuasive. *See* Pet. 16. First, as Patent Owner points out, the ’576 application was allowed to go abandoned after the claims were finally

rejected, whereas the applicants filed a request for continued examination of the '871 application and continued to prosecute the claims of that application to issuance. Prelim. Resp. 16; *see also id.* at 12–16 (describing prosecution history of '871 application in Ex. 1047). Thus, the difference in the ultimate outcome of these two applications appears to result from the applicants' prosecution strategy, not inconsistency between examiners.

Second, Petitioner has not shown that the Examiner of the '576 application actually reached a different finding on the same evidence in the Dow Declaration. The rejection Petitioner cites from the '576 prosecution does not address Dr. Dow's testimony, nor the applicants' related argument, that the reduction in side effects observed for the claimed 0.045% tazarotene lotion (i.e., Composition A) as compared to 0.1% Tazorac® cream were "translatable" to 0.05% Tazorac® cream because other data show that the 0.05% cream was "as irritating" as the 0.1% cream. *Compare* Ex. 1029, 2–16 (final rejection), *with* Ex. 1029, 1163–1164 (Dow Declaration); 1156–1157 (applicant response). This appears to have been an oversight given the reasoning offered in the Examiner's rejection. Ex. 1029 at 5–6 (stating that no comparison had been made to the 0.05% cream). In any event, the lack of a finding regarding the previously presented evidence in the '576 prosecution does not show a material error in the decision to expressly credit it in the '871 prosecution. *See* Ex. 1047, 13–14 (specifically finding this evidence persuasive). For both of these reasons, Petitioner's reliance on the '576 prosecution does not suggest a material error in the Office's finding that the applicants' unexpected results showing was persuasive.

Petitioner's argument that the results in the '482 patent would have been expected "in light of the real-world clinical practice disclosed in at

least Chim and Anderson” is also unavailing. Pet. 33; *see also* Pet. 82 (same). As explained above, references with cumulative teachings were considered by the Office. *See, e.g.*, Ex. 1009, 650 (describing treatment of acne with 0.05% tazarotene cream); Ex. 1001, 349 (evaluating safety and efficacy of topical tazarotene 0.1% and 0.05% gels). Indeed, the Examiner of the ’871 application expressly found that the evidence presented in the Dow Declaration showed an “unexpected reduction in side effect of the claimed 0.045% wt. tazarotene” lotion composition compared to *both* the 0.1% and 0.05% creams on the Tazorac® Label. Ex. 1047, 13–14. Even if we accept Petitioner’s assertion that a POSITA would have been aware that the 0.05% cream had been used off-label to treat acne prior to the critical date, that fact does not demonstrate a material error in the Office’s finding that Composition A (i.e., the recited 0.045% tazarotene lotion) showed an unexpected decrease in side effects as compared to the 0.05% cream. *Id.*

In addition, Petitioner has not shown that the results evidencing that Composition A was more effective for treating acne than 0.1% Tazaroc® cream would have been expected. The data in the Specification show that Composition A exhibited a higher treatment % success than the 0.1% cream, notwithstanding the fact that Composition A contained less than half as much tazarotene. Ex. 1001, 9:1–40 (Tables 6); *see also* Ex. 1047, 73–74 (Dow Declaration explaining this data show that the improvement over placebo was “substantially higher” for Composition A). Petitioner suggests this result would have been expected because the ’824 publication teaches its lotion vehicle can improve penetration allowing for better efficacy. Pet. 60, 63, 83 (citing Ex. 1003 ¶ 138; Ex. 1005 ¶¶ 131, 142). But the teachings in the ’824 publication relate to corticosteroids, which are a different class of

active ingredient. *Id.* at 8 (citing Ex. 1002 ¶¶ 16, 35, 37–40). Moreover, Shalita teaches that for tazarotene gel “[e]fficacy was concentration-dependent” with “significant differences favoring” the 0.1% composition over one with only 0.05% tazarotene. Ex. 1011, 353. Petitioner does not sufficiently square such teachings with its arguments, much less demonstrate that reasonable minds could not differ as to whether the efficacy results in the Specification would have been expected in view of the previously presented record.

Petitioner’s argument that these results “merely represent a difference in degree, not a difference in kind” is conclusory and unpersuasive. Pet. 3, 33, 83 (citing *Galderma Labs., L.P. v. Tolmar, Inc.*, 737 F.3d 731, 739 (Fed. Cir. 2013)). Petitioner likens the facts of this case to those in *Galderma* where the Federal Circuit explained that “‘where an unexpected increase in efficacy is measured by a small percentage . . . and the evidence indicates that skilled artisans were capable of adjusting the percentage, the result constitutes a difference in degree, not kind.’” *Id.* at 3, 33, 83 (quoting *Galderma*, 737 F.3d at 739). However, the results presented in this case are “that the claimed 0.045% tazarotene lotion . . . was 31.8% more effective than Tazorac® 0.1% cream and 90.3% less irritating than Tazorac® 0.1% cream and, by extension, Tazorac® 0.05% cream whose tolerability was found in clinical studies to be comparable to Tazorac® 0.1% cream.” *See* Prelim. Resp. 48 (emphasis omitted); Ex. 1002, 81-84 (presenting same). Petitioner does not explain, much less persuasively show, how a POSITA would have considered an over 90% reduction in irritation to be only a small percentage difference. Moreover, to the extent Petitioner suggests that a POSITA would understand that irritation was a function of tazarotene

concentration and could be adjusted by reducing that concentration, it fails to reconcile that argument with Dr. Dow's testimony (and the Office's related finding) that Tazorac® 0.05% cream was "as irritating" as Tazorac® 0.1% cream. Ex. 1047, 13–14, 73–74. Turning to efficacy, it is true that the differences in "Treatment % Success" are smaller. *See* Ex. 1001, 9:1–15 (Table 6); Ex. 1047, 74 (same data in Dow Declaration). However, the fact that the data show an increase or even just a similar percentage, rather than a decrease, is counterintuitive given the much lower concentration of active ingredient in the Composition A lotion. *See* Ex. 1011, 353 (teaching efficacy increases with a higher concentration of tazarotene). Again, Petitioner does not sufficiently square this counterintuitive result with its argument that the difference in efficacy observed in the results in the Specification is only one of degree—much less show that reasonable minds could not differ on this point. For these reasons, we find Petitioner's comparison of the facts here to those in *Galderma* inapt.

Petitioner also argues that given the "small sample sizes" and "lack of any statistical analysis," a POSITA "would not be able to conclude that the data disclosed in the patents demonstrates that the 0.045% tazarotene lotion provided greater and/or similar efficacy in treating acne as the 0.1% tazarotene cream." Pet. 83 (citing Ex. 1003 ¶ 203). We are not persuaded. The clinical study comparing Composition A and Tazorac® 0.1% cream in the Specification includes data from more than 200 patients. Ex. 1001, 7:42–49. Neither Petitioner, nor its declarant, attempts to explain why a POSITA would understand this sample size to be insufficient to ascertain the results in Tables 6 and 8. *See* Ex. 1003 ¶ 203. Indeed, the Petition relies on a different clinical study in Kircik that involved only 40 patients. Ex. 1009,

651. Petitioner’s declarant, Dr. Schwartz, testifies that the lack of a reported statistical analysis for Tables 6 and 8 “undermines” the conclusions that can be drawn. Ex. 1003 ¶ 203. But such testimony does not negate the data reported there, nor Dr. Dow’s testimony that those results show both unexpectedly reduced irritation and higher efficacy for the Composition A lotion. Put differently, while reasonable minds may differ as to the extent additional patients and analysis would be desirable, Petitioner has not demonstrated that the Office materially erred in crediting the previously presented results as persuasive to overcome substantially the same prior art and arguments. *See Advanced Bionics*, 9 (“If reasonable minds can disagree regarding the purported treatment of the art or arguments, it cannot be said that the Office erred in a manner material to patentability.”).

Finally, we are unpersuaded by Petitioner’s argument that the Examiner of the ’482 patent erred in finding there was “no motivation to administer tazarotene alone in view of WO ’001” because “the Examiner was not informed of the decade-plus of off-label use of compositions comprising 0.05% tazarotene for the treatment of acne.” Pet. 34 (quoting Ex. 1002, 55). First, the Examiner’s finding that Petitioner points to was premised on WO ’001’s teaching that the combination of tarzarotene and halobetasol provided a synergistic benefit for treating psoriasis, which is what that reference teaches. Ex. 1002, 55; *see, e.g.*, Ex. 1007 ¶¶ 20, 77–78. But more importantly, Petitioner’s argument does not address the unexpected results showing. Thus, even if using a composition comprising 0.05% tazarotene to treat acne would have been *prima facie* obvious in view of the alleged off-label use or other references cited in the Petition, Petitioner has not persuasively shown that the Office materially erred in

determining that the recited 0.045% tazarotene lotion was patentable in view of the unexpected results evidence of record.

Accordingly, Petitioner has not shown material error in the Office's prior consideration of substantially the same art and arguments.

D. Conclusion

Based on the foregoing, we determine that the circumstances of this case warrant the exercise of discretion under 35 U.S.C. § 325(d) and therefore deny institution.

IV. ORDER

After due consideration of the record before us, and for the foregoing reasons, it is:

ORDERED that the Petition is denied, and no *inter partes* review is instituted.

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