

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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DR. REDDY'S LABORATORIES, LTD. and  
DR. REDDY'S LABORATORIES, INC.  
Petitioner

v.

GALDERMA LABORATORIES, INC.  
Patent Owner

U.S. Patent No. 8,603,506  
Issue Date: Dec. 10, 2013  
Title: Method of Treating Acne

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Case IPR2015-01777

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**PATENT OWNER'S PRELIMINARY RESPONSE**

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## EXHIBITS

Exhibit No.	Description
2001	Executed Affidavit in Support of Motion for <i>Pro Hac Vice</i> Admission of Evan Diamond (IPR2015-01777)
2002	Evan Diamond Bio (IPR2015-01777)
2003	Joseph B. Bikowski & Mitchel P. Goldman, <i>Rosacea: Where Are We Now?</i> , 3 J. DRUGS DERMATOLOGY 251 (2004)
2004	ORACEA <sup>®</sup> Label, rev. 2013
2005	<i>Research Found. of State Univ. v. Mylan Pharms, Inc.</i> , 809 F. Supp. 2d. 296 (D. Del. 2011)
2006	Answer to Complaint, Additional Defenses and Counterclaims, <i>Galderma Labs., L.P. et al. v. Dr. Reddy's Labs., Ltd. et al.</i> , C.A. No. 15-670-LPS (D. Del. Sept. 22, 2015)
2007	Jonathan Wilkin et al., <i>Standard Classification of Rosacea: Report of the National Rosacea Society Expert Committee on the Classification and Staging of Rosacea</i> , 46 J. AM. ACAD. DERMATOLOGY 584 (2002)
2008	Szlachcic et al., <i>Helicobacter Pylori and Its Eradication in Rosacea</i> , 50 J. PHYSIOLOGY PHARMACOLOGY 777 (1999)
2009	Mark V. Dahl, <i>Pathogenesis of Rosacea</i> , in 17 ADVANCES IN DERMATOLOGY 29 (William D. James ed., 2001)
2010	N. Lacey et al., <i>Mite-Related Bacterial Antigens Stimulate Inflammatory Cells in Rosacea</i> , 157 BRIT. J. DERMATOLOGY 474 (2007)
2011	Elizabeth Lazaridou et al., <i>The Potential Role of Microorganisms in the Development of Rosacea</i> , 9 J. GERMAN SOC'Y DERMATOLOGY 21 (2011)
2012	Shamim A. Ansari, <i>Resident Microflora and Antimicrobial Peptides of Skin</i> , in INNATE IMMUNE SYSTEM OF SKIN AND ORAL MUCOSA: PROPERTIES AND IMPACT IN PHARMACEUTICS, COSMETICS, AND PERSONAL CARE PRODUCTS 83 (Nava Dayan & Philip W. Wertz eds., 2011)
2013	Committee on Research, Science and Therapy, <i>The Pathogenesis of Periodontal Diseases</i> , 70 J. PERIODONTOLOGY 457 (1999)
2014	Petition for <i>Inter Partes</i> Review, <i>Dr. Reddy's Labs., Ltd. v. Galderma Labs, Inc.</i> , IPR2015-01782 (P.T.A.B. 2015)



## **I. INTRODUCTION**

Patent Owner submits this preliminary response under 35 U.S.C. § 313 to Dr. Reddy's Laboratories, Ltd. and Dr. Reddy's Laboratories, Inc. ("Petitioner")'s petition ("Petition") for *inter partes* review ("IPR") of claims 1, 7, 8, 14, 15, and 20 of U.S. Patent No. 8,603,506 ("the '506 Patent"). This preliminary response is filed timely within three months of the Board's notice, mailed August 27, 2015, indicating that the Petition was accorded a filing date. For reasons set forth herein and in the accompanying exhibits, the Board should deny all grounds of invalidity asserted in the Petition.

## **II. BACKGROUND**

Rosacea (also known as "acne rosacea")<sup>1</sup> is a chronic disorder of the skin, which affects approximately 14 million Americans. Ex. 2003, p. 251. Rosacea can manifest as a range of symptoms, including (1) "papules and pustules," (2) flushing and redness, known as "erythema," and (3) visible blood vessels, known as "telangiectasia." Ex. 1034, p. 144; Ex. 1001, col. 4, ll. 23-44. Historically, the

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<sup>1</sup> It is undisputed that the terms "rosacea" and "acne rosacea" are synonymous. *See* Petition, p. 11 (acknowledging "acne rosacea" as an "antiquated" form of the term "rosacea").

papules and pustules of rosacea were treated with a variety of topical gels and creams, or with oral therapies, including long-term administration of oral antibiotic drugs. Among these oral antibiotics were drugs in the tetracycline class, including doxycycline, which were administered in antibacterial dosages (*e.g.*, typically 100-200 mg doxycycline per day). Ex. 2003, p. 252. While this treatment regimen could be effective, long-term use of tetracycline-class antibiotics frequently lead to undesirable side effects such as the emergence of antibiotic-resistant bacteria and the overgrowth of undesirable organisms such as yeasts. Ex. 1001, col. 3, ll. 31-36.

The invention of the challenged claims of the '506 Patent arose from the discovery by Robert Ashley of CollaGenex Pharmaceuticals, Inc. ("CollaGenex") of an unprecedented method of treating papules and pustules of acne and rosacea by oral administration of a 40 mg daily dose of doxycycline that unexpectedly maintained efficacy of higher, antibacterial doses while avoiding the undesirable side effects of those higher doses. Ex. 1001, col. 3, ll. 26-50. Central to Mr. Ashley's invention was the surprising discovery that Periostat<sup>®</sup>—20 mg doxycycline hyclate for twice daily administration, approved by the FDA as an adjunct therapy in treatment of the gum disease periodontitis—could be used to treat papules and pustules of acne and rosacea, despite conventional wisdom that

only higher, antibacterial dosages would be effective. Ex. 1001, col. 3, ll. 26-50; col. 5, ll. 59-63.

The challenged claims of the '506 Patent thus cover a novel and inventive method for using doxycycline in a 40 mg daily dose to treat papules and pustules of the facial skin condition rosacea, with no reduction of skin microflora over a six month period. These claims cover Patent Owner's product ORACEA<sup>®</sup>, which was first approved by the United States Food and Drug Administration ("FDA") in 2008 and is used today for the treatment of inflammatory lesions (papules and pustules) of rosacea. Ex. 2004, p. 1. ORACEA<sup>®</sup> remains the first and only FDA approved, orally administered, systemically delivered drug to treat rosacea, with reduced side effects as compared to prior treatments. *See* Ex. 2005, p. 300, ¶ 27; *see also* Ex. 2004, p. 1, "Dosing and Administration" section.

Based on public assertions by the Petitioner, the Petitioner intends to market a 40 mg doxycycline product under the tradename ZENAVOD<sup>®</sup> that is covered by the '506 Patent claims. Ex. 2006, p. 15, ¶¶ 24-26.

The Petitioner's asserted grounds for challenging these claims of the '506 Patent are generally based on the premise that a person of ordinary skill in the art ("POSA") seeking to treat rosacea papules and pustules would have looked to literature regarding use of 40 mg daily doxycycline as an adjunct therapy in

*periodontitis* treatment—a disease entirely different from rosacea—and would have combined that literature with a document consistent with the historical practice of using higher dose, *antibacterial* doxycycline therapy to treat rosacea papules and pustules.

Yet, the Petition mischaracterizes the state of the prior art and fails to establish *prima facie* obviousness, let alone a reasonable likelihood that it would prevail on its obviousness theory. *See* 35 U.S.C. § 314(a) (IPR may not be instituted absent “a reasonable likelihood that the petitioner would prevail”); 37 C.F.R. § 42.108(c).

### **III. OVERVIEW OF THE ’506 PATENT**

The ’506 Patent issued from U.S. Patent Application No. 13/277,789; which is a continuation of U.S. Patent Application No. 11/876,478, issued as U.S. Patent No. 8,052,983; which is a continuation of U.S. Application No. 10/757,656 (now abandoned); which is a division of U.S. Patent Application No. 10/117,705, issued as U.S. Patent No. 7,211,267; which claims priority to U.S. Provisional Application Nos. 60/325,489, filed September 26, 2001, and 60/281,916, filed April 5, 2001.

Claim 1 of the ’506 Patent recites:

A method for treating papules and pustules of rosacea in a human in need thereof, the method comprising administering orally to said human doxycycline, or a pharmaceutically acceptable salt thereof, in an amount that

- (i) is effective to treat the papules and pustules of rosacea;
- (ii) is 10-80% of a 50 mg dose of doxycycline per day; and
- (iii) results in no reduction of skin microflora during a six-month treatment, without administering a bisphosphonate compound.

Claim 15 recites:

A method for treating papules and pustules of rosacea in a human in need thereof, the method comprising administering orally to said human doxycycline, or a pharmaceutically acceptable salt thereof, in an amount of 40 mg per day, wherein the amount results in no reduction of skin microflora during a six-month treatment, without administering a bisphosphonate compound.

The specification of the '506 Patent explains a need for alternative therapies for acne and rosacea, including treatment of inflammatory lesions (papules and pustules), with efficacy comparable to then-conventional antibiotic therapies, but that minimize undesirable side effects associated with the conventional therapies,

such as a reduction or elimination in healthy microbial flora. Ex. 1001, col. 3, ll. 7-40, and col. 4, ll. 24-43. The specification explains that, while tetracyclines had been proposed to have anti-inflammatory activities, the state-of-the-art still required use of *antibacterial* tetracycline doses to treat papules and pustules. Ex. 1001, col 3, ll. 14-26. Thus, as the specification explains, nothing in the prior art taught such treatment using dosages intended to *avoid antibiotic effects*. Ex. 1001, col 3, ll. 27-30. The specification further identifies the use of 40 mg doxycycline daily (*e.g.*, 20 mg doxycycline twice daily) as an “especially preferred embodiment,” and provides clinical data showing that this 40 mg daily dose was effective in treating inflammatory lesions (papules and pustules) of acne while resulting in no reduction of skin microflora or increase in resistance counts as compared to placebo over a six-month treatment. Ex. 1001, col. 5, ll. 59-63; col. 19, l. 37 to col. 20, l. 44; and claim 15.

Thus, the specification of the '506 Patent explains that the claimed methods covering a 40 mg daily dosage of doxycycline fulfilled the need in the art—a therapy that is effective to treat the papules and pustules of rosacea, while resulting in no reduction of skin microflora during a six-month treatment.

#### **IV. PERSON OF ORDINARY SKILL IN THE ART**

The Petitioner alleges that the person of ordinary skill in the art would have been a licensed and practicing dermatologist with as little as one year of experience treating patients in a hospital, clinic, and/or private setting. Patent Owner does not fully agree with the Petitioner in this regard, but will adopt the Petitioner's description for purposes of this Preliminary Response. Even under the Petitioner's description of a POSA, the Petitioner has failed to show a reasonable likelihood that it can prove any of the claims at issue to have been obvious to a POSA at the relevant time in view of the Petitioner's alleged prior art Grounds.

#### **V. CLAIM CONSTRUCTION**

In an *inter partes* review, “[a] claim in an unexpired patent shall be given its broadest reasonable construction in light of the specification of the patent in which it appears.” 37 C.F.R. § 42.100(b). Under this standard, the language of the claims, the specification and the prosecution history all serve as intrinsic evidence for purposes of claim construction. *Tempo Lighting v. Tivoli*, 742 F.3d 973, 977 (Fed. Cir. 2013). Moreover, claims are construed from the perspective of one of ordinary skill in the art at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*). And this Board has held that “[t]here is a ‘heavy presumption’ that a claim term is given its ordinary and customary

meaning.” *Berk-Tek, LLC v. Belden Inc.*, IPR2013-00058, Paper 13, 14 (P.T.A.B. May 2, 2013). Consistent with this standard, below Patent Owner defines relevant claim terms in the context of the language of the claims, the specification, the prosecution history, and the understanding in the art at the time of the invention.

**A. “Rosacea”**

The claim term “rosacea” was a well-understood term in the art and should be given its plain and ordinary meaning, as construed by a POSA at the time of the invention. The language of the claims, specification, and prosecution history of the ’506 Patent confirm that the plain and ordinary meaning of the claim term “rosacea” controls here. For example, in the Response filed September 19, 2012, the applicant cited a publication by Wilkin *et al.* that described rosacea as a “well recognized” syndrome that may encompass a variety of possible symptoms, including papules and pustules:

Rosacea is well recognized as a chronic cutaneous disorder primarily of the convexities of the central face (cheeks, chin, nose and central forehead), often characterized by remissions and exacerbations. Based on present knowledge, it is considered a syndrome, or typology, encompassing various combinations of such cutaneous signs as flushing, erythema, telangiectasia,



edema, papules, pustules, ocular lesions, and rhinophyma. In most cases, some rather than all of these stigmata appear in any given patient.

Ex. 2007, p. 584.

The specification of the '506 Patent also discloses that “acne,” including “acne rosacea” (*i.e.*, rosacea), can include symptoms of papules and pustules, and that acne rosacea can also be characterized by symptoms of erythema and telangiectasia. Ex. 1001, col. 4, ll. 23-43. The claims of the '506 Patent likewise are directed to treatment of “papules and pustules of rosacea.”

The Petitioner does not clearly state what it believes the construction of “rosacea” should be, or explain why any particular construction apart from the plain and ordinary meaning is merited here. Instead, under the heading “Claim Construction” and subheading “Rosacea,” the Petitioner simply lists certain statements from the specification of the '506 Patent, without further explanation, and does not discuss the prosecution history of the '506 Patent or understanding of a POSA at the relevant time as it relates to the claim term “rosacea.” Accordingly, it appears the Petitioner agrees that “rosacea” should be construed in accordance its plain and ordinary meaning.

**B. “Papules” and “Pustules”**

The terms “papules” and “pustules” were well-understood terms in the art and also should be construed according to their plain and ordinary meaning. As the Petitioner acknowledges, nothing in the specification of the ’506 Patent provides that the terms “papules” and “pustules” should be construed differently than their plain and ordinary meaning. Petition, p. 23. In the Response filed September 19, 2012, the applicant explained that “papules and pustules are inflammatory lesions that occur only on skin” and “are features of facial rosacea,” which definition was consistent with quoted medical literature describing “papules” as, *e.g.*, “small rounded bumps rising from the skin that are each usually less than 1cm in diameter,” and literature describing a “pustule” as, *e.g.*, “a small collection of pus in the top layer of skin (epidermis) or beneath it in the dermis.” Ex. 1070, p. 6. And, as the Petitioner admits, “[p]apules and pustules are extremely common to both common acne (acne vulgaris) and rosacea (as well as other skin disorders), and . . . the resulting papules and pustules in both diseases share common underlying properties . . . .” Petition, pp. 23-24.

While the Petitioner does not contest that the terms “papules” and “pustules” should be construed by their plain and ordinary meaning, the Petition does reference statements from Dr. Payette’s Declaration (*See* Petition, p. 23) regarding

these terms, *e.g.*, related to underlying causes of papules. It is unclear from the Petition if these statements are intended to provide a construction of these terms; nevertheless, to the extent that these statements can be read as attempting to construe the terms “papules” and “pustules” by reference to Dr. Payette’s Declaration, the Petitioner is incorrect. Nothing in the claims, specification, or file history suggests that the applicant meant to limit or define the terms “papules” or “pustules” in accordance with these opinions quoted in the Petition. Moreover, the statement from Dr. Payette regarding “a papule” cites to an extrinsic publication with seven paragraphs under the heading “Papules,” of which Dr. Payette crop-quotes two sentences. Ex. 1004 ¶ 19; Ex. 1056, p. 27. The Petitioner fails to explain why the terms “papules” and “pustules” should be defined according to Dr. Payette’s selective statements from the extrinsic evidence, or whether the Petitioner is asserting such a construction at all.

## **VI. THE PETITION FAILS TO SHOW A REASONABLE LIKELIHOOD THAT AT LEAST ONE CLAIM IS UNPATENTABLE**

The Board may not grant a petition for IPR unless it “determines that the information presented in the petition filed under section 311 and any response filed under section 313 shows that there is a reasonable likelihood that the petitioner would prevail.” 35 U.S.C. § 314(a).

Importantly, § 314(a) requires the Board’s determination to be based on “information presented in the petition.” Likewise, the Petitioner has a statutory obligation under § 312(a)(3) to identify “with particularity, each claim challenged, the grounds on which the challenge to each claim is based, and the evidence that supports the grounds for the challenge to each claim.” Thus, it is not for the Board to fill in gaps omitted by the Petitioner. The evidentiary burden falls squarely on the Petitioner.

Equally important is § 314(a)’s requirement that the Board’s determination take into account “information presented in . . . any response filed under section 313.” In other words, the Board’s determination must be based on the totality of the written evidence presented at the pre-trial stage.

Ultimately, the focus of the inquiry under § 314(a) is whether the Petitioner “would prevail”—*i.e., win on the merits* based exclusively on the “information presented in the petition . . . and any response.” *See* 35 U.S.C. § 314(a).

**A. All Grounds in the Petition rely on conclusory statements in the Payette Declaration (Ex. 1004) that are unsupported by the alleged prior art**

The arguments in the Petition fail to demonstrate that the Petitioner “would prevail” because they are grounded in unsupported assumptions regarding the state of the art and mischaracterizations of references cited in the Petition and in the

Payette Declaration (Ex. 1004). Two of these assumptions and mischaracterizations are foundational to all of the Petitioner's asserted Grounds for obviousness: (1) the Petitioner's assertion that rosacea was understood at the time of invention to be "non-bacterial" and (2) the Petitioner's assertion that rosacea and periodontitis were recognized to utilize common inflammatory pathways and, thus, treatment methods for these diseases were expected to be interchangeable. With respect to each of these assertions, here Patent Owner not only demonstrates that the Petitioner has not provided sufficient evidence that a POSA at the time of invention would have accepted these assertions, but also points to pertinent prior art (including statements within the Petitioner's own alleged prior art) that contradicts the Petitioner's assertions, and which the Petitioner has ignored without justification.

1. The Petitioner has provided no evidence a POSA at the '506 Patent's priority date would have "known" rosacea to be "not bacterial"

Critical to the Petitioner's obviousness analysis, in all three asserted Grounds, is the allegation that "it was known that rosacea in general, and its papules and pustules specifically, were. . . **not bacterial**." *See, e.g.*, Petition, pp. 6 ("Introduction and Summary of Argument"), 33 ("Ground 1"), 50 ("Ground 2"); *see also* Ex. 1004 (Payette Declaration), ¶ 26 ("the pathogenesis of the papules and

pustules of rosacea was **known** to be primarily inflammatory in nature, **not bacterial**). The Petitioner relies on this allegedly “known” fact, *i.e.*, that rosacea was “not bacterial,” to argue that a POSA would have been motivated to treat papules and pustules of rosacea with amounts of doxycycline that provided only anti-inflammatory activity and were not effective antibiotically. *See, e.g.*, Petition, p. 33 (“At the most basic level, the fact that the papules and pustules of rosacea were known to be inflammatory, and not bacterial, would raise concerns for dermatologists about needlessly continuing to dose an antibacterial amount of doxycycline when other options were readily available.”).

Yet the Petitioner has presented no evidence demonstrating that a POSA provided with the full scope and content of the prior art *circa* 2001 would have **known** rosacea to be “not bacterial.” To the contrary, the Petitioner’s own cited references and other contemporaneous documents demonstrate that the rosacea etiology was **not** known, and further, that microorganisms **were** considered to be a potential factor in the pathogenesis and treatment of rosacea.

For example, the Petitioner cites Ex. 1010 (Torresani), Ex. 1048 (Golub), and Ex. 1004 (Dr. Payette’s Declaration) in support of its assertion that “it was known that the papules and pustules of rosacea were not bacterial, but more inflammatory conditions.” Petition, p. 5. But Torresani explicitly states that “[t]he

*etiology and pathogenesis of rosacea are still unknown*,” while suggesting “an etiologic relationship between rosacea and *Helicobacter pylori* infections.” Ex. 1010, pp. 945-946 (emphasis added). Golub is a 1990 document that concerns the impact of tetracyclines on *periodontitis*—a different condition in a different organ from rosacea—and only mentions rosacea once in passing among a series of other conditions “which are not *believed* to have a microbial etiology.” Ex. 1048, p. 325 (emphasis added).

Dr. Payette’s Declaration refers to Ex. 1034 (Jansen) and Ex. 1035 (Marks) when discussing the etiology of rosacea. *See* Ex. 1004, ¶ 33. Like Torresani, Jansen emphasizes that “[t]he exact aetiology of rosacea is unknown” and that “[t]he pathogenesis of rosacea ...remains obscure.” Ex. 1034, p. 144 (emphasis added). Ex. 1035 (Marks) stresses that “the question remains — what is the cause of inflammation?” Ex. 1035, p. 36 (emphasis added).

Other alleged prior art references cited by the Petitioner also establish that the etiology of rosacea far from “known.” *See* Ex. 1006 (Sneddon), p. 649 (“There must be few diseases which cause more emotional flushing in the supporters of the various theories of causation than rosacea.”); Ex. 1007, p. 1051, left col. (“[Rosacea’s] cause is unknown, and various hypotheses on its aetiology have been found unacceptable when their assumptions have been put to the test.”).

While the underlying causes of rosacea were not well-defined at the '506 Patent's priority date, literature from around that time suggests that bacteria did play a role in rosacea pathogenesis. For example, Szlachcic *et al.* (Ex. 2008) suggests a link between rosacea and microorganisms such as *H. pylori*, and suggests a connection between antibacterial activity and treatment of rosacea papules and pustules. *See, e.g.*, Ex. 2008, p. 777 ("The eradication of [*H. pylori*] leads to a dramatic improvement of symptoms of rosacea . . ."). Likewise, Dahl (Ex. 2009, published in 2001) affirms a hypothetical POSA's view on this point: "Despite these findings, ***I believe that the papules and pustules do have a bacterial origin.*** The prompt improvement and even clearing of papules and pustules that routinely follows the use of numerous oral and topical antibiotics of completely different chemical structures and microbial spectrums would seem to support this view." Ex. 2009, p. 36 (emphasis added).

In fact, years after the '506 Patent's priority date, scientists continued to explore the bacterial impact on rosacea formation, further highlighting the fact that rosacea was far from "***known***" to be "not bacterial" before the '506 Patent's priority date. *See, e.g.*, Ex. 2010 (Lacey et al.), p. 474 (highlighting that even in 2007 rosacea's "aetiology and pathogenesis are poorly understood"; indicating at page 479 that treatment-related rosacea literature "suggested to us the possibility



that a bacterial agent may be involved in the pathogenesis of the disease”; and concluding at page 480 that “the antigenic load of these microorganisms...may consequently affect the inflammatory changes which form the characteristic clinical features of the disease we recognize as papulopustular rosacea”). *See also* Ex. 2011 (Lazaridou et al.), p. 24 (stating that “the role of microorganisms in the development of rosacea has not been clearly defined [and] data available to date suggest that they may have a potential role”); Ex. 2012 (Ansari), p. 87 (indicating that “[r]esident organisms have been shown to play a role in noninfectious skin diseases such as...rosacea”).

Thus, it is apparent that by 2001-2002 a POSA considering the *full scope* of the prior art would have harbored ample reason to suspect that rosacea *does in fact* have a bacterial component. The Petitioner’s allegations to the contrary amount to unfounded overstatements of the state of the art at the ’506 Patent’s priority date and are fatal to its obviousness theories under Grounds 1, 2 and 3.

2. The Petitioner has provided no evidence a POSA at the ’506 Patent’s priority date would have been motivated to use a periodontitis treatment for the treatment of rosacea

Also fundamental to the asserted Grounds in the Petition is the Petitioner’s misguided assertion that rosacea and periodontitis have “similar” pathophysiologies and, thus, methods of treating periodontitis would have been

expected to treat papules and pustules of rosacea. *See, e.g.*, Petition, p. 10 (“[t]he inflammatory pathways of periodontal disease were **known** to exist in papules and pustules of rosacea”); p. 33 (“Ground 1”) (“rosacea and periodontitis were both inflammatory conditions influenced by some of the same pathways and mechanisms”); p. 47 (“Ground 2”) (“several mechanisms linked to inflammation...were **known**...to be common to both periodontal disease and rosacea”); and claim charts on pp. 41-45 and 52-54 (presuming that periodontitis treatment methods are relevant to treatment of papules and pustules of rosacea). The Petitioner, however, mischaracterizes the cited art, inaccurately characterizes the testimony of its own expert, Dr. Payette, and disregards meaningful differences between rosacea and periodontitis that a POSA would have appreciated at the ’506 Patent’s priority date. Again, these errors undermine the basis for all of the Petitioner’s alleged Grounds for obviousness.

The Petitioner cites Ex. 1048 (Golub) and ¶ 39 of the Payette Declaration for showing that periodontitis and rosacea were “**known**” to have common underlying inflammatory pathways (*see, e.g.*, Petition, pp. 10, 33, 47); yet neither document supports such a conclusion. Dr. Payette mentions at ¶ 39 of his declaration that “[t]he authors [of Ex. 1048] then described several mechanisms linked to inflammation, which **appeared to be** involved in and were common to both

periodontal disease and rosacea.” But Ex. 1048 (Golub), which is the only reference cited by Dr. Payette in this context, provides no indication that the inflammatory pathways separately associated with papules and pustules of rosacea and periodontal disease, respectively, were even believed to be “similar,” let alone “**known**” to be so. Indeed, the **only** mention of rosacea in Ex. 1048 is a single sentence at page 325, right col., which states: “As one example, tetracyclines now appear to possess anti-inflammatory properties when administered to patients with certain skin diseases such as rosacea, dermatitis herpetiformis and pyoderma gangrenosum which are not believed to have a microbial etiology.” (emphasis omitted). This limited disclosure, which says **nothing** about any specific inflammatory mechanisms believed to be involved in rosacea or its treatment with tetracyclines, cannot justify the Petitioner’s conclusion that “[t]he inflammatory pathways of periodontal disease were **known** to exist in papules and pustules of rosacea” (quoting Petition, p. 10 (emphasis added)).

Moreover, a POSA at the ’506 Patent’s priority date would have expected rosacea pathophysiology to be different from that of periodontitis, at least because these respective conditions are associated with vastly different clinical manifestations. For instance, rosacea was known at the time of invention as a skin disorder with symptoms that could include transient papules and/or pustules. *See,*

*e.g.*, Ex. 1001, col. 4, ll. 24-43, and claim 1. *See also* Ex. 2007, p. 585 (cited in Ex. 1070, p. 5); Ex. 2009, p. 35 (“Papules and pustules of rosacea so much resemble acne vulgaris that the condition has been called acne rosacea”); and Ex. 1034, p. 144 (“The hallmarks of rosacea are papules and papulopustules, vivid-red erythema, and telangiectases and a history of flushing.”). The Petitioner has not cited any prior art linking papules and pustules, or any other facial skin symptoms, to periodontitis. The Petitioner’s failure to present such evidence is not surprising, since the prior art characterizes periodontitis by symptoms vastly different from papules and pustules:

[Periodontitis is characterized by] the loss of connective tissue attachment to the teeth in the presence of concurrent gingival inflammation. Loss of the periodontal ligament and disruption of its attachment to cementum, as well as resorption of the alveolar bone occurs. Together with loss of attachment, there is a migration of the epithelial attachment along the root surface and resorption of bone.

Ex. 2013, p. 458. Consistent with this understanding, Ex. 1048 (Golub)—which is cited in all of the Petitioner’s Grounds—reports on the effect of doxycycline on enzyme activity in “gingival tissue” or “gingival and crevicular fluid” of

periodontitis patients, *i.e.*, samples taken from the gums, not the facial skin. Ex. 1048, p. 322, left col. Nothing in the actual studies described in Golub evaluated the effects of any amount of doxycycline (let alone 40 mg/day doxycycline) on any biological pathway in the facial skin, not to mention in papules and pustules of rosacea.<sup>2</sup>

Not surprisingly then, the treatment protocols associated with periodontitis and papules and pustules of rosacea were also understood to be much different from one another. For instance, the Petitioner recognizes that prior to the '506 Patent's priority date, rosacea was treated by a dermatologist with, *e.g.*, antibiotically effective doses of tetracyclines. *See* Petition, p. 30 ("Prior to the filing of the first application leading to the '506 Patent, the doses of doxycycline typically used for treating rosacea were 100 mg/day or more.... These were generally considered to be antibiotic amounts."); *see also* Ex. 1010 (Torresani), p. 942, discussing "systemic treatment of mild and severe rosacea [with antibiotics]."

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<sup>2</sup> Notably, the PERIOSTAT PDR (Ex. 1042) states that, even for the effects in periodontitis patients such as described in Golub (*i.e.*, reduction of certain enzyme activity in gingival crevicular fluid), "[t]he clinical significance of these findings *is not known*." Ex. 1042, p. 945.

But treatment of periodontitis, which would have been conducted by either a dentist or periodontist (*i.e.*, not a dermatologist) was very different: etiologic agents were removed by mechanical procedures (*e.g.*, “scaling and root planing” or surgical procedures), and tetracyclines, when prescribed, were only used as an ***adjunct*** to removal. *See* Ex. 1042, p. 945 (“Periostat<sup>®</sup> is indicated for use as an adjunct to scaling and root planing....”); *see also* Ex. 1048, p. 322, right col. (“Subjects...were judged to require full-thickness flap surgery as part of their therapy....”).

As already noted, the unsupported assumptions and mischaracterizations discussed here, in Parts VI.A.1 and VI.A.2, form the basis for the Petitioner’s entire obviousness rationale under all Grounds of the Petition. The Petitioner’s failure to provide sufficient evidence supporting these assertions *per se* warrants denial of the Petition, because the information presented in the Petition does not demonstrate, with a reasonable likelihood, that the Petitioner will prevail. That scientific literature refutes the Petitioner’s unsupported assertions regarding what was known in the prior art only reinforces the notion that the Petitioner cannot prevail on the merits in an IPR proceeding. Nevertheless, below Patent Owner specifically addresses Grounds 1, 2 and 3 in the Petition, and points out additional

deficiencies associated with the Petitioner's arguments beyond those discussed above.

**B. Response to Ground 1: The Petitioner shows no reasonable likelihood that claims 1, 7, 8, 14, 15 and 20 are invalid over the combination of Sneddon (Ex. 1006), Golub (Ex. 1048), Torresani (Ex. 1010), and PERIOSTAT PDR (Ex. 1042)**

In Ground 1, the Petitioner cites Sneddon (Ex. 1006), which describes treating rosacea with *antibiotically effective* doses of tetracycline. *See* Ex. 1006, p. 652. In particular, Sneddon describes a clinical trial where rosacea patients received 250 mg tetracycline twice daily and reported improvement in 47 patients after one month “as shown by disappearance of pustules, flattening of papules and diminution of erythema.” *Id.*, pp. 649-650; *see also* Ex. 1011 at 151 (characterizing Sneddon as “treating rosacea patients with 250 mg tetracycline twice daily”). Sneddon states that the efficacy of tetracycline in controlling pustulation may be accepted due to its “bacterial origin,” while speculating that the efficacy of tetracycline in controlling erythema “is not entirely an antibacterial...effect.” Ex. 1006, pp. 651-652.

The Petitioner further cites Torresani (Ex. 1010), which describes treating rosacea with, again, *antibiotically effective* doses of doxycycline (100 mg tetracycline twice daily for 4 weeks and then once daily for 4 weeks). *See* Ex.

1010, p. 942. Torresani emphasizes that “[t]he *etiology and pathogenesis of rosacea are still unknown.*” *Id.*, p. 945 (emphasis added). Although Torresani speculates that “[t]he therapeutic activity of tetracyclines *seems to be related to* their anti-inflammatory efficacy,” Torresani never teaches or suggests that rosacea has no bacterial origin. To the contrary, Torresani describes “an etiologic relationship between rosacea and *Helicobacter pylori* infections.” *Id.*, p. 946. Torresani also suggests use of another, different antibiotic drug—clarithromycin—and describes how its efficacy in treating rosacea may be linked to its antibacterial effects. *Id.*

Sneddon and Torresani thus would not have provided a POSA with any justification for treating papules and pustules of rosacea by orally administering doxycycline or a pharmaceutically acceptable salt thereof in an amount that was not antibiotically effective (including, *e.g.*, 40 mg per day), resulting in no reduction of skin microflora during a six month treatment, and without administering a bisphosphonate compound.

Recognizing that Sneddon and Torresani do not teach treating papules and pustules of rosacea with the claimed dosages of doxycycline, the Petitioner alleges that the teachings of Golub and PERIOSTAT PDR regarding the treatment of *periodontitis* with 40 mg/day doxycycline, which only serves as an *adjunct*



*therapy* to scaling and root planning, would have motivated a POSA to also treat papules and pustules of rosacea with 40 mg/day doxycycline. *See* Petition, pp. 32-38. According to the Petitioner, a POSA would have been motivated to treat papules and pustules of rosacea with 40 mg/day doxycycline, because (i) rosacea was known *not* to have a microbial etiology (an unsustainable assumption as demonstrated above in Part VI.A.1), and (ii) rosacea and periodontitis would have been treated with the same drugs and drug dosages because they were known to have “common” inflammatory pathways (again, this is not accurate, as discussed above in Part VI.A.2). Petition, pp. 32-38. This is simply not the case.

1. There would have been no motivation to combine Sneddon and Torresani with Golub and PERIOSTAT PDR

A POSA at the '506 patent's priority date would not have been motivated to combine the teachings of Sneddon, Torresani, Golub, and PERIOSTAT PDR to reach the claimed invention of the '506 Patent. *See, e.g., Cheese Sys., Inc. v. Tetra Pak Cheese & Powder Sys., Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013) (“[T]he fact-finder must determine . . . whether there was motivation to combine teachings from separate references.”). The Petitioner has failed to establish a motivation to combine its alleged prior art references for Ground 1 at least because:

(i) Sneddon and Torresani describe treating a *different ailment* than Golub and PERIOSTAT PDR (*i.e.*, rosacea in Sneddon and Torresani v. periodontitis in Golub and PERIOSTAT PDR);

(ii) Sneddon and Torresani describe treating a *different organ of the body* than Golub and PERIOSTAT PDR (*i.e.*, skin v. gums); and

(iii) Sneddon and Torresani indicate that *an antibiotically effective dose is necessary to treat papules and pustules of rosacea*, whereas the 40 mg/day doxycycline doses of Golub and PERIOSTAT PDR were described only as being useful in the treatment of periodontitis, as an adjunct therapy to scaling and root planing (*i.e.*, an antibiotically effective dose v. a dose not sufficient for reducing numbers of or eliminating microorganisms associated with periodontitis).

Patent Owner reiterates that Golub and PERIOSTAT PDR relate only to periodontitis, which was understood to be a different condition, in a different organ, with different clinical manifestations, and different treatment protocols than those associated with papules and pustules of rosacea. *See supra* Part VI.A.2. Given these differences, a POSA without the benefit of hindsight would have had no reason to combine the rosacea treatment of Sneddon and Torresani with the periodontitis treatment of Golub and PERIOSTAT PDR.

This conclusion is buttressed by the consistent requirements by Sneddon (Ex. 1006), Torresani (Ex. 1010), and other alleged prior art literature cited by the Petitioner (*e.g.*, Ex. 1034 and Ex. 1011) of using antibiotically effective doses of doxycycline to treat rosacea, as well as the prevalent knowledge in the prior art of the potential involvement of bacteria in rosacea (*see supra* Part VI.A.1), which would have discouraged a POSA from treating papules and pustules of rosacea with the 40 mg/day dosage of Golub and PERIOSTAT PDR. Unlike the doxycycline dosages described in Sneddon, Torresani and other literature for treating papules and pustules of rosacea, which were approved as antibiotic drugs for the treatment of infection (Ex. 1051, pp. 942-943), the 40 mg/day dosage described in PERIOSTAT PDR was specifically ***not*** to be used for “reducing the numbers of or eliminating those microorganisms associated with periodontitis.” *See* Ex. 1042, p. 945.<sup>3</sup>

The Petitioner’s other allegations regarding motivation run directly contrary to the teachings of the prior art available to a POSA at the time of invention of the

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<sup>3</sup> Patent Owner does not admit that PERIOSTAT PDR’s statement regarding “microorganisms associated with periodontitis” has any relevance whatsoever to skin microflora.

'506 Patent. For example, the Petitioner offers the backward-looking statement that “a dermatologist...would...arrive at the decision to try a lower dose doxycycline regimen [for treating rosacea]” and that “[I]f lower doses were not effective, doctors could always prescribe a higher dose.” Petition, pp. 9 and 35; *see also* Ex. 1004, ¶ 50 (stating that the considerations in treating rosacea “more heavily counsels starting with a low dose and titrating the patient to the lowest dose that treats the patient’s papules and pustules”). But a POSA, at the '506 Patent’s priority date would have understood exactly the opposite—the prevalent teaching for using tetracyclines in treating rosacea was to use a **high, antibacterial dose**, and to reduce the dose, if at all, only **after** the papules and pustules were treated and under control. *See, e.g.*, Ex. 1010 (200 mg/day doxycycline for four weeks, followed by 100 mg/day doxycycline for four weeks); Ex. 1034, p. 148 (stating “[o]ne should start with large doses” and that dose should only be reduced when “papulopustules are fully controlled”); Ex. 1011, pp. 149-150 (starting with 100 mg/day dose for one patient and 50 mg/day for the other, and reducing the dose, if at all, only following the observation that the patient “was essentially clear”).

2. Ground 1 should be denied under § 325(d) because similar arguments were already addressed and overcome during original prosecution

Patent Owner also points out overt parallels between the Petitioner's asserted obviousness rationale and obviousness grounds already raised, and subsequently withdrawn, by the Examiner during prosecution of the '506 Patent. Just as the Petitioner now alleges obviousness based on treatment of a different condition with an inflammatory component (periodontitis) in different organs (gum, teeth and surrounding bone), the Examiner during prosecution of the '506 Patent issued and then withdrew a rejection based on a prior art disclosure of sub-antimicrobial doses for treatment of "meibomian gland disease" ("MGD") an eye condition with an inflammatory component. Ex. 1071, pp. 7-12. In particular, the Examiner granted allowance following consideration of a position akin to that of the Petitioner's arguments, concluding that "MGD is an ocular disorder that is clearly distinguished from a skin condition," and that "success in treating an eye disease with a sub-antibiotic treatment is not relevant to treating a skin disease with an antibiotic treatment." Ex. 1071, pp. 7-12. Thus, the Patent Office has already considered the Petitioner's asserted obviousness rationale and concluded that the '506 Patent claims are patentable.

Notably, the Petitioner's reliance on the gum disease periodontitis is arguably even further afield from the Examiner's withdrawn reference to MGD, as there was at least some evidence that "[p]atients sometimes present with both symptoms of rosacea and symptoms of MGD," even though they were still considered distinct conditions with distinct treatments. Ex. 1071, pp. 10-11. Here, the Petitioner has presented no evidence of even some prevalence of periodontitis in patients with papulopustular rosacea—let alone any reason for a POSA to have expected both conditions to be treatable with the same drug at the same dosage.

3. The Petitioner does not sufficiently substantiate its inherency allegation regarding treating rosacea with no reduction of skin microflora over a six-month treatment

The '506 Patent claims recite methods of treating papules and pustules of rosacea with doxycycline (*e.g.*, 40 mg) in an amount that results in no reduction of skin microflora during a six month treatment. The Petitioner alleges that this element is either an "inherent property of the drug dosage" (Petition, p. 39) or inherent to the prior art (*see, e.g.*, Petition, pp. 6 and 40). In neither case, however, does the Petitioner support these contentions with factual evidence.

Recently, the Patent Trial and Appeal Board refused to institute an IPR when "Petitioner and its expert witness contend in a conclusory manner [that a claim limitation is an inherent property of a composition, because]...Petitioner does not

establish sufficiently that the [claim] limitation is an inherent property or a necessary result of administering the composition as recited.” *See, e.g., Ferrum Ferro Capital, LLC v. Allergan Sales, LLC*, IPR2015-00858, Paper 10, 10 (P.T.A.B. Sept. 21, 2015). In that case, the petitioner sought to establish, among other things, that a “without loss of efficacy” limitation was an inherent property or a necessary result of administering a composition. The Board deemed the petitioner’s arguments and expert testimony to be “conclusory,” and thus insufficient to demonstrate inherency. As noted above, the instant Petition is similar—neither the Petitioner nor the Petitioner’s expert provide fact-based support for their conclusions—and the Petitioner therefore has not sufficiently substantiated its inherency position under the standard applied by the Board in *Ferrum Ferro Capital*.

The Petitioner alleges that “the lack of impact of 40 mg of doxycycline on skin microflora is a function of that dose of that drug, not the condition for which it was prescribed.” Petition, p. 39. The Petitioner has provided no literature-based evidence that this is the case. Instead, the Petition cites only to paragraph [62] of the Payette Declaration, which notably includes **zero** citations to external references, *i.e.*, it consists entirely of unsupported conclusory statements. Because Dr. Payette, and by extension the Petitioner, provides no evidentiary support for

this conclusion, the Petition has not sufficiently established that the recited skin microflora effect is a function of dosing, and not administration to a human in need of treating papules and pustules of rosacea.

The Petitioner also alleges that the recited effect on skin microflora is inherent in the prior art, though it is unclear as to why exactly the Petitioner believes this to be the case. For instance, the claim chart on pages 41-45 cites Ex. 1042 as showing that “[t]he dosage of doxycycline achieved with this product during administration is well below the concentration required to inhibit microorganisms associated with adult periodontitis,” and the Petitioner further states that the recited effect on skin microflora “*must* have been, and must be, the natural result flowing from administering PERIOSTAT.” *See* Petition, pp. 40 (emphasis in original).

The Petitioner has not met the “high standard” associated with using inherency in an obviousness context. *See Par Pharmaceutical v. TWI Pharmaceuticals, Inc.*, 773 F.3d 1186, 1195-96 (Fed. Cir. 2014), noting that “[a] party must, therefore, meet a high standard in order to rely on inherency to establish the existence of a claim limitation in the prior art in an obviousness analysis.” *See also In re Rijckaert*, 9 F.3d 1531, 1534 (Fed. Cir. 1993), highlighting that “[t]hat which may be inherent is not necessarily known.



Obviousness cannot be predicated on what is unknown. Such a retrospective view of inherency is not a substitute for some teaching or suggestion supporting an obviousness rejection.” (quoting *In re Spormann*, 363 F.2d 444, 448 (C.C.P.A. 1996) and *In re Newell*, 891 F.2d 899, 901 (Fed. Cir. 1989).

The Petitioner alleges that the recited effect on skin microflora “*must* have been, and must be, the natural result flowing from [the prior art].” *See, e.g.*, Petition, p. 40; *see also* claim chart on pp. 41-45, which cites Ex. 1042 as showing that “[t]he dosage of doxycycline achieved with this product during administration is well below the concentration required to inhibit microorganisms associated with adult periodontitis.” But the Petitioner neglects the fact that the claims are directed to methods for treating ***papules and pustules of rosacea*** using, *e.g.*, 40 mg of doxycycline, wherein the amount results in no reduction of skin microflora during a six-month treatment. *See, e.g.*, Ex. 1001, claims 1 and 15. Instead, the Petitioner points to the use of 40 mg/day doxycycline in patients with ***periodontitis*** (Petition, p. 39), which cannot possibly be an inherent disclosure of the claimed results from a treatment for papules and pustules of rosacea. This is especially true since periodontitis treatment occurs in a patient population (*i.e.*, patients with periodontitis) different from rosacea treatment (*i.e.*, patients with rosacea).

Since the Petitioner has provided no evidence whatsoever supporting its expert's conclusory opinions that the recited lack of impact on skin microflora is inherent in the drug dose generally, and also has provided no evidence that the recited effect was inherent to the prior art, the Petitioner's contentions are insufficient to warrant IPR institution.

4. The combination of Sneddon, Golub, Torresani, and PERIOSTAT PDR provides no reasonable expectation that papules and pustules of rosacea could be treated as claimed

The Petitioner also cannot explain why a POSA at the time of invention would have had a reasonable expectation of success in achieving the invention of the challenged claims— *e.g.*, treating papules and pustules of rosacea with a 40 mg/day dosage of doxycycline, with no reduction of skin microflora during a six-month treatment, and without administering a bisphosphonate compound.<sup>4</sup> Even considering the Petitioner's assertion that it was obvious to experiment with different doxycycline dosages (which the Petitioner has not established), "there is

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<sup>4</sup> The arguments in this Preliminary Response do not address the "without administering a bisphosphonate compound" claim element. Patent Owner believes the Petitioner has not shown a reasonable likelihood that the claims are invalid regardless of the Petitioner's allegation that this element is inherent in the prior art.

nothing to indicate that a skilled artisan would have had a reasonable expectation that such an experiment would succeed in being therapeutically effective.” *See Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1357 (Fed. Cir. 2013) (quoting *In re Cyclobenzaprine Hydrochloride Extended-Release Capsule Patent Litig.*, 676 F.3d 1063, 1070 (Fed. Cir. 2012)).

As discussed above, the Petitioner’s arguments regarding alleged expectation of success are based on flawed assumptions and mischaracterizations of the state of the art at the ’506 Patent’s priority date. That is, the Petitioner’s mistaken assertions fatal to its Ground 1 include, among other things:

- Alleging that “the papules and pustules of rosacea were known to be inflammatory, and not bacterial” (Petition, p. 33); but ignoring prior art teaching that the etiology of rosacea was unknown, that bacteria were potentially involved in its etiology and treatment, and that antibacterial doses of doxycycline were a state-of-the-art treatment in 2001 and beyond. *See supra* Part VI.A.1.
- Alleging that the use of 40 mg/day doxycycline as an adjunct to scaling and root planing for periodontal disease would have provided a reasonable expectation of success for its use in treating papules and

pustules of rosacea; but failing to provide any prior art support demonstrating that a POSA would have reasonably expected these different conditions in different organs to be effectively treated with the same drug in the same dosage. *See supra* Part VI.A.2.

Unable to establish that the alleged prior art would have given a POSA a reasonable expectation of success in practicing the claimed invention, the Petitioner argues in the alternative that it would have been reasonable to “*try* a low dose” of doxycycline because, per the Petitioner, if it did not work, “there likely would be no serious consequence...only lost time.” Petition, pp. 34-35. But the goal of rosacea therapy is to treat patients with effective dosages of drug—not to give patients ineffective doses until something happens to work. *See supra* Part VI.B.1. In any event, the Petitioner’s unsupported upward titration theory cannot establish a reasonable expectation that a 40 mg/day dosage would have *succeeded in being therapeutically effective*. *See Leo Pharm.*, 726 F.3d at 1357; *In re Cyclobenzaprine*, 676 F.3d at 1070.

5. The Petitioner’s allegations are wholly driven by hindsight

As the discussion thus far demonstrates, the Petitioner’s arguments are thoroughly colored by improper hindsight analysis. The issue of alleged obviousness must be analyzed from the perspective of a POSA at the time of

invention, without the benefit of hindsight, in view of the full scope and content of the prior art. *See Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 882 (Fed. Cir. 1998). Instead, the Petitioner and its declarant Dr. Payette began their analysis armed with knowledge of the claimed invention of the '506 Patent—a method of treating papules and pustules of rosacea with a 40 mg daily dosage of doxycycline, with no reduction of skin microflora over a six-month treatment—and used that knowledge in an attempt to reconstruct the claimed invention from an improperly narrow selection of alleged prior art.

The Petitioner's hindsight-driven analysis<sup>5</sup> is apparent in its assessment of the “scope and content of the prior art,” which is at once overly narrow (with respect to the art regarding the etiology and treatment of rosacea) and overly inclusive (with respect to considering unrelated literature regarding the treatment of periodontitis). *See* Petition, pp. 27-32. The Petitioner's attempt to frame the

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<sup>5</sup> The Petitioner's hindsight-driven analysis may be influenced by the fact that its declarant, Dr. Payette, was still an undergraduate student in 2001, and did not even begin his dermatology residency until several years after the FDA approval of ORACEA<sup>®</sup>. *See* Ex. 1005 (C.V. of Michael Payette), p. 1, “Education/Work” section.

scope and content of the prior art from its present-day knowledge of the claimed invention of the '506 Patent, rather than considering the full scope and content of the prior art from the perspective of a POSA at the time of invention, is a critical error that alone merits denial of institution. *See Monarch Knitting*, 139 F.3d at 881.

When discussing the etiology of rosacea, the Petitioner alleges as “[a] *fact* that the papules and pustules of rosacea were known to be inflammatory, and not bacterial.” Petition, p. 33. To support such alleged “fact,” the Petitioner cites paragraph 33 of Dr. Payette’s Declaration (Ex. 1004) in the “scope and content of the prior art” section. Petition, p. 29. Dr. Payette’s Declaration, in turn, cites Ex. 1034 (Jansen) and Ex. 1035 (Marks). Ex. 1004, ¶ 33. But Jansen and Marks each emphasizes that the etiology of rosacea was unknown. *See* Ex. 1034 (Jansen), p. 144 (“[t]he exact aetiology of rosacea is unknown” and “[t]he pathogenesis of rosacea ...remains obscure”); Ex. 1035, p. 36 (“the question remains — what is the cause of inflammation?”).

The Petitioner also discusses Sneddon and Torresani in the “scope and content of the prior art” section with respect to the etiology of rosacea. Petition, pp. 28-29. A review of the entire disclosure of Sneddon and Torresani, however, does not support the Petitioner’s allegation as “[a] *fact* that the papules and

pustules of rosacea were known to be inflammatory, and not bacterial.” Petition, p. 33. In particular, Sneddon discloses that the efficacy of tetracycline in controlling pustulation may be accepted as due to its “bacterial origin,” while speculating that the efficacy of tetracycline in controlling erythema, on the other hand, “is not entirely an antibacterial...effect.” Ex. 1006, pp. 651-652. Torresani emphasizes that “[t]he etiology and pathogenesis of rosacea are still unknown.” Ex. 1010, p. 945. Although Torresani speculates in a single sentence that “[t]he therapeutic activity of tetracyclines seems to be related to their anti-inflammatory efficacy,” Torresani also points out “an etiologic relationship between rosacea and *Helicobacter pylori* infections.” Ex. 1010, p. 946. The Petitioner cannot explain why, without hindsight, a POSA would have disregarded the clear indication by the disclosure of Jansen, Marks, Sneddon, and Torresani, as a whole, of the existence of a bacterial origin for papulopustular rosacea.

The only other mention of the etiology of rosacea in the Petitioner’s discussion of the “scope and content of the prior art” is the Petitioner’s citation to Golub 1990 (Ex. 1048), for a *single sentence* that mentions rosacea among several other “skin diseases,” which the Petitioner cites to support its claim that rosacea was known to be “not bacterial.” See Petition, p. 30; *but see* Part VI.A.1. But glaringly absent from the Petitioner’s discussion is any of the publications

available at the relevant time (including documents that the Petitioner cited elsewhere) explaining that the etiology of rosacea was unknown, and that bacteria were understood to be potentially involved in the etiology of rosacea and in its treatment with oral antibiotics. *See supra* Part VI.A.1; *see also* Ex. 2009, p. 36 (“The prompt improvement and even clearing of papules and pustules that routinely follows the use of numerous oral and topical antibiotics of completely different chemical structures and microbial spectrums would seem to support [a bacterial origin of the papules and pustules of rosacea].”).

The Petitioner’s use of hindsight in selecting prior art for its alleged obviousness grounds is particularly improper in its reliance on documents concerning *periodontitis*—Golub (Ex. 1048) and the PERIOSTAT PDR (Ex. 1042)—rather than considering the full scope and content of prior art concerning treatment of *rosacea*. As discussed above in *supra* Part VI.A.2, the Petitioner has not even attempted to substantiate its claims that periodontitis literature would have been considered relevant here merely because it is “another inflammatory condition,” or because, as the Petitioner asserts without support or specificity, “inflammatory pathways of periodontal disease were also known to exist in rosacea.” *See* Petition, pp. 5 and 32. The fact that Golub (Ex. 1048), allegedly describing 40 mg/day doxycycline for periodontitis, was published in 1990, and yet



the Petitioner does not offer any alleged prior art in the following *11 years* that disclosed the use of 40 mg/day doxycycline for the treatment of rosacea, is a real-world demonstration of the improper hindsight in the Petitioner's selection of prior art.

6. The Petitioner attempts to rely on hypothetical and unproven alleged prior uses rather than printed publications

Predicated on the false assumption that rosacea is “not bacterial” (*see supra* Part VI.A.1) and a view that both rosacea and periodontitis are inflammatory conditions (*see supra* Part VI.A.2), the Petitioner alleges that “there is evidence that, before the ‘506 patent, doctors were already using PERIOSTAT “off label” [for treating papules and pustules of rosacea]” and that “PERIOSTAT, an FDA-approved low dose doxycycline product, was readily at hand, even if [the use for treating papules and pustules of rosacea] was ‘off label.’” Petition, pp. 9 and 38 (citing Ex. 1015). At this point, it appears that the Petition veers off into reliance upon alleged prior uses that are outside the scope of a printed publication or prior art reference—and that the Petitioner fails to establish. *See, e.g., Coalition for Affordable Drugs V LLC v. Biogen MA Inc.*, IPR2015-01136, Paper 23 (P.T.A.B. Sept. 2, 2015), at 9 (“[A] prior use, public or otherwise, is not prior art available in an IPR.”) The Petitioner's insinuations regarding off-label use rely ultimately on

Ex. 1015 (Kapes), which was *published after the '506 Patent's priority date*, and in any event is not part of any of the Petitioner's asserted Grounds in this Petition.

In general, while doctors are free to prescribe a medication for an “off-label” use, the Petitioner provides no evidence that they would have done so absent an underlying expectation of success, *i.e.*, a reason to believe the medication would effectively treat the non-approved indication. Here, such reason does not exist, because it was not in fact *known* that rosacea was “not bacterial,” and because there was no known direct correlation between treatment of periodontitis and rosacea. *See supra* Part VI.A. Mere availability of a low dose doxycycline formulation cannot ably justify its use to treat a non-approved condition, which action would carry ethical implications for any doctor. By suggesting that doctors would have tried off-label medications simply because they could, the Petitioner “urges an obviousness finding by merely throwing metaphorical darts at a dart board in hopes of arriving at a successful result”—a line of argument that the Federal Circuit has squarely precluded. *See In re Cyclobenzaprine*, 676 F.3d at 1070-71.

7. The Petitioner does not demonstrate that claims reciting a doxycycline serum concentration in the range of about 0.1 to about 0.8 µg/ml would have been obvious

The Petition separately sets forth arguments related to dependent claims 7, 14, and 20, each of which require administration of doxycycline to achieve a serum concentration in the range of about 0.1 to about 0.8 µg/ml. The Petitioner alleges that PERIOSTAT PDR shows that administering 40 mg/day doxycycline results in a 0.79 µg/ml mean peak serum concentration of doxycycline. Petition, pp. 40-41. While this fact cannot be disputed, its relevance to methods of treating papules and pustules of rosacea is suspect and provides no guidance regarding doxycycline serum concentration for the claimed indications. The Petitioner sets forth no reason or rationale as to why treatment of the papules and pustules of rosacea with a doxycycline serum concentration in the range of about 0.1 to about 0.8 µg/ml would have been obvious.

**C. Response to Ground 2: The Petitioner shows no reasonable likelihood that claims 1, 8 and 15 are invalid over the combination of Golub (Ex. 1048), Torresani (Ex. 1010), and Jansen (Ex. 1034)**

Compared to Ground 1, which starts from conventional rosacea treatments with antibiotically effective doses of tetracycline/doxycycline (Sneddon and Torresani) and substitutes such antibiotically effective doses with 40 mg/day doxycycline from the periodontitis literature (Golub and PERIOSTAT PDR), Ground 2 starts from periodontitis treatment with 40 mg daily doxycycline (Golub) and swaps the target indication from periodontitis to rosacea, which was previously

treated with antibiotically effective doses of doxycycline (Torresani and Jansen).

Petition, pp. 45-51.

The only reference that is cited in Ground 2 but not in Ground 1 is Jansen (Ex. 1034), which is alleged by the Petitioner to have “confirmed that rosacea and in particular, its papules and pustules, are inflammatory in nature, and not bacterial.” Petition, p. 50. A careful review of Jansen points to the opposite. Jansen explicitly reports that “[t]he exact aetiology of rosacea is unknown” and “[t]he pathogenesis of rosacea ...remains obscure.” Ex. 1034, p. 144 (emphasis added). Moreover, Jansen explains that “rosacea generally responds well to oral antibiotics” and “[o]ne should start with *large doses [of antibiotics]*,” and refers to 1.0-1.5 g tetracycline per day or 50 mg doxycycline twice daily as exemplary antibiotically effective dosages. Ex. 1034, p. 148 (emphasis added).

Notwithstanding the citation of a new reference and a different manner of combining prior art, Ground 2 is still premised on two critical allegations that are also foundational to the arguments under Ground 1. First, the Petitioner alleges that “the papules and pustules of rosacea are clearly inflammatory, and not bacteriological, in nature.” Petition, p. 49. Second, the Petitioner alleges that “the inflammatory pathways in periodontal disease were the same as those found in inflammatory rosacea,” and thus “employing a lower dose protocol, such as was

successfully used for periodontal conditions, would produce similarly advantageous results in connection with rosacea.” Petition, pp. 49 and 51.

The Petitioner shows no reasonable likelihood of success with respect to Ground 2 for at least the same reasons that Ground 1 fails to meet this burden. Indeed, the two primary references cited in Ground 2—Golub and Torresani—also were cited in Ground 1. As already discussed at length, contrary to the Petitioner’s assertion, none of the cited references reasonably suggests that rosacea was “known” to be “not bacterial” (*see supra* Part VI.A.1). Neither do the references suggest that treatment methods for periodontitis and rosacea, respectively, are interchangeable merely because 40 mg/day doxycycline was successfully used in treating “a chronic inflammation condition (periodontitis)” and rosacea is alleged to be “another chronic inflammatory condition.” Petition, p. 50; *see supra* Part VI.A.2.

Thus, for at least those reasons discussed above with respect to Ground 1, there would have been no motivation to combine Golub with Torresani and Jansen at the outset; yet, even if the teachings were combined, their combination fails to suggest methods that “result[] in no reduction in skin microflora during a six-month treatment.” As noted for Ground 1, the Petitioner cannot discharge its obligation to demonstrate the obviousness of this element of the claims under the

cover of “inherency.” Lastly, none of Golub, Torresani or Jansen provides any grounding of a reasonable expectation, absent hindsight reconstruction, that papules and pustules of rosacea could be treated with methods as claimed. *See supra* Part VI.B.

**D. Response to Ground 3: The Petitioner shows no reasonable likelihood that claims 7, 14 and 20 are invalid over the combination of Golub (Ex. 1048), Torresani (Ex. 1010), Jansen (Ex. 1034) and PERIOSTAT PDR (Ex. 1042)**

In Ground 3, based on the same references cited in Ground 2 and one additional reference (PERIOSTAT PDR, Ex. 1042), the Petitioner separately sets forth arguments related to dependent claims 7, 14, and 20, each of which require administration of doxycycline to achieve a serum concentration in the range of about 0.1 to about 0.8 µg/ml. The Petitioner alleges that PERIOSTAT PDR shows that administering 40 mg/day doxycycline results in a 0.79 µg/ml mean peak serum concentration of doxycycline. Petition, p. 55. While this fact cannot be disputed, PERIOSTAT PDR merely teaches the use of 40 mg/day doxycycline, as an adjunct to scaling and root planing, for the treatment of *periodontitis*. Its relevance to methods of treating papules and pustules of rosacea is suspect and provides no guidance regarding doxycycline serum concentration necessary for the claimed indications. The Petitioner sets forth no reason or rationale as to why treatment of

the papules and pustules of rosacea with a doxycycline serum concentration in the range of about 0.1 to about 0.8 µg/ml would have been obvious.

**E. “Secondary considerations” demonstrate nonobviousness of the claimed methods**

As set forth above, the Petitioner has not met its burden of demonstrating that the claims would have been obvious under the asserted Grounds. Secondary considerations (*i.e.*, objective indicia of nonobviousness) lead to the same conclusion.

The Federal Circuit has stated that secondary considerations of non-obviousness “can be the most probative evidence of non-obviousness in the record, and enables the...court to avert the trap of hindsight.” *Crocs, Inc. v. Int’l Trade Comm’n*, 598 F.3d 1294, 1310 (Fed. Cir. 2010). Further, the Federal Circuit has repeatedly explained that “[o]bjective indicia of non-obviousness may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Institut Pasteur v. Focarino*, 738 F.3d 1337, 1346 (Fed. Cir. 2013); *In re Cyclobenzaprine*, 676 F.3d at 1075-76. Finally, the Federal Circuit has specifically found that a patentee “need not show that all possible embodiments within the claims were successfully commercialized in order to rely on the success in the marketplace of the embodiment that was commercialized.” *Applied Materials, Inc.*

*v. Advanced Semiconductor Materials Am., Inc.*, 98 F.3d 1563, 1570 (Fed. Cir. 1996). As discussed below, several objective indicia demonstrate that the claimed inventions in the present case would not have been obvious.

1. The claimed invention of the '506 Patent satisfied a long-felt, unmet need for an effective treatment of papules and pustules of rosacea with reduced side effects

Prior to 2001, there was a long-felt but unmet need for a treatment of papules and pustules of rosacea that would be as effective as the state-of-the-art antibiotic treatments (*e.g.*, antibacterial doses of tetracyclines), but would have reduced side effects and potential for emergence of antibiotic resistance associated with long-term antibiotic therapy. The specification of the '506 Patent sets forth that (1) the state-of-the-art was to use antibiotically effective doses of tetracyclines, (2) long-term use of tetracyclines could lead to undesirable side effects including emergence of resistant microorganisms, and (3) “there [was] a need for an effective treatment of acne which causes fewer undesirable side effects produced by the systematically-administered antibiotics used in conventional acne therapy.” Ex. 1001, col. 3, ll. 14-40; *see supra* Part II.

The Petitioner’s own statements (and those of its declarant Dr. Payette) confirm the existence of this long-felt, unmet need for the claimed methods of the '506 Patent. According to Dr. Payette, the use of antibiotic amounts of



tetracyclines in treating rosacea had been known since as early as 1966. *See, e.g.*, Ex. 1004 ¶ 28; *see also* Ex. 1006 (Sneddon). The Petitioner and Dr. Payette also acknowledge that these antibiotic therapies were known to have potential unwanted side effects, including among other things, potential for creating drug resistant microorganisms. *See* Petition, p. 7 (identifying “antibiotic level side effects” and “the prospect of creating drug resistant bacteria” as unwanted effects associated with using “an antibiotic amount of an antibiotic drug”); Ex. 1004 ¶ 48 (stating that there were “well-known potential adverse effects of antimicrobial doses of tetracyclines, including doxycycline”).

Yet, despite the Petitioner’s assertion that it would have been obvious to fulfill this need for a new, safer but still effective rosacea treatment with the 40 mg/day doxycycline dosage claimed in the ’506 Patent, the Petitioner has not shown *any* prior art in the *thirty five* years following 1966 even hinting that 40 mg/day doxycycline (or anything other than antibiotically effective doses) could have been used to satisfy this need. According to Petitioner’s own alleged art for this Petition, even as of 1997 and beyond, antibiotic amounts of 100-200 mg/day doxycycline were still the dosages understood to be clinically effective in treating rosacea. *See* Ex. 1010, p. 942; Ex. 1011, pp. 149-150. Thus, even taking into account the Petitioner’s own alleged “motivations” in lowering the dose of

doxycycline treatments, it is significant that no one in the art had heretofore suggested treating papules and pustules of rosacea with 40 mg/day doxycycline in the thirty-five years preceding the '506 Patent's priority date.

2. Commercial success of ORACEA<sup>®</sup> further establishes nonobviousness of the claimed methods

Nonobviousness of the '506 Patent claims is further supported by the significant commercial success of ORACEA<sup>®</sup>, a once-daily oral pharmaceutical containing a total of 40 mg doxycycline, indicated for the treatment of papules and pustules of rosacea. Upon litigation of other patents covering ORACEA<sup>®</sup>, a U.S. District Court found that "ORACEA<sup>®</sup> is a commercial success," noting its extensive sales. *See* Ex. 2005, p. 316, ¶¶ 288-90 (ORACEA<sup>®</sup> sales of \$43.0m (2007), \$80.4m (2008), \$155.3m (2009), \$236.7m (2010), \$258.1m (2011 projected)). A ***nexus is presumed*** between the commercial success of ORACEA<sup>®</sup> and the claimed methods of treatment, which cover its use. *See J.T. Eaton & Co. v. Atlantic Paste & Glue Co.*, 106 F.3d 1563, 1571 (Fed. Cir. 1997) ("When a patentee can demonstrate commercial success, usually shown by significant sales in a relevant market, and that successful product is the invention disclosed and claimed in the patent, ***it is presumed*** that the commercial success is due to the patented invention.") (emphasis added). The overwhelming commercial success of

ORACEA<sup>®</sup> is thus yet another indicia of the nonobviousness of the claimed methods.

3. The Petitioner attempts to copy the 40 mg/day dosage claimed in the '506 Patent, despite the availability of generic 50 mg and 100 mg doxycycline

The nonobviousness of the claimed invention of the '506 Patent is further demonstrated by the fact that the Petitioner, among others, has attempted to copy that claimed invention—despite the availability of off-patent 50 mg and 100 mg doxycycline dosages that the Petitioner could have chosen to make instead. *See, e.g., Forest Labs., Inc. v. Ivax Pharms., Inc.*, 438 F. Supp. 2d 479, 496 (D. Del. 2006), *aff'd*, 501 F.3d 1263, 1269 (Fed. Cir. 2007) (finding the “copying of others . . . particularly telling” where a racemic form of the innovator drug was unpatented and available as a generic drug and yet generic drug manufacturers sought approval to market a generic version of the innovator drug).

Specifically, based on its public allegations, the Petitioner has disclosed that it is currently seeking FDA approval to market a pharmaceutical product under the brand name ZENAVOD<sup>™</sup>, which the Petitioner asserts will “contain[] doxycycline hyclate equivalent to **40 mg of doxycycline**,” and will be “indicated for the treatment of only ***inflammatory lesions (papules and pustules) of rosacea*** in adult patients.” Ex. 2006, p. 15, ¶¶ 24-26. The Petitioner’s commercial pursuit of the

invention claimed by the '506 Patent, despite the availability of off-patent 50 mg and 100 mg doxycycline dosages, is additional real-world evidence of the therapeutic advance that this novel invention has brought over the prior art usage of long-term antibiotically effective dose therapy, with its attendant risks and side effects.

## **VII. THE PETITION SHOULD BE DENIED AS REDUNDANT OVER IPR2015-01782**

The Board should exercise its discretion under 35 U.S.C. §§ 314(a), 325(d) and 37 C.F.R. § 42.108(b) and reject the Petitioner's Petition in its entirety, because it is redundant over another one of the Petitioner's Petitions currently before the Board (*i.e.*, IPR2015-01782). The '782 Petition relates to the same patent and claims—claims 1, 7, 8, 14, 15, and 20—that are the subject of the Petition at issue here. Significantly, even the arguments presented in the current Petition are substantially the same as those presented in the '782 Petition, and two of the references cited in this Petition, Golub (Ex. 1048) and PERIOSTAT PDR (Ex. 1042), are also cited in the '782 Petition. This overlap is abundantly clear when Ground 1 of the instant Petition is compared with Ground 2 of the '782 Petition.

	IPR2015-01777 Petition	IPR2015-01782 Petition
	<p>“Ground 1 starts with the premise that: <i>(1) it was known to treat rosacea with tetracycline, including doxycycline</i> (Exhs.1006, 1010); <i>(2) it was known that the papules and pustules of rosacea were not bacterial, but more inflammatory conditions</i> (Exhs.1010, 1048, 1004 ¶ 33); and <i>(3) it was known that doxycycline was an effective anti-inflammatory agent at the claimed doses</i> (Exhs.1010, 1042, 1048, 1004 ¶ 42), that is, doses below those allegedly considered to have an antibiotic effect.” IPR2015-01777 Petition, p. 5 (emphasis added).</p>	<p>“Ground 2 starts with the premise that by April 5, 2001: <i>(1) it was known to treat rosacea with doxycycline</i> (Exh.1004 ¶ 31, 32; 1011)); <i>(2) it was known that the papules and pustules of rosacea were not bacterial, but more inflammatory conditions</i> (Exh.1004 ¶ 33, 1011); and <i>(3) it was known that doxycycline was an effective anti-inflammatory agent at the claimed doses</i> (Exhs.1004 ¶ 42, 1042, 1048), that is, doses below those allegedly considered to have an antibiotic effect.” Petition, pp. 5-6 (emphasis added).</p>

To more clearly demonstrate this redundancy, a comparison of IPR2015-01777 Ground 1 and IPR2015-01782 is as follows (using IPR2015-01777 Ground 1 as a starting point):

*Ground 1 ~~2~~ starts with the premise that by April 5, 2001: (1) it was known to treat rosacea with ~~tetracycline, including~~ doxycycline (~~Exhs. 1006, 1010~~ Exh. 1004 ~~¶ 31, 32, 1011~~); (2) it was known that the papules and pustules of rosacea were not bacterial, but more inflammatory conditions (~~Exhs. 1010, 1048,~~ Exh. 1004 ~~¶ 33, 1011~~); and (3) it was known that doxycycline was an effective anti-inflammatory agent at the claimed doses (~~Exhs. 1010~~ 1004 ~~¶ 42, 1042, 1048,~~ ~~1004~~ ~~¶ 42~~), that is, doses below those allegedly considered to have an antibiotic effect.*

The fact that the Petitioner only changed the Exhibit Nos., yet left the arguments concerning them essentially untouched, should suffice as evidence that the references cited between the Petitions, not to mention the arguments advanced concerning them, are wholly cumulative. That is, both Petitions advance the *same rationale* in alleging invalidity of the challenged claims. Grounds 2 and 3 of the instant Petition are similarly redundant with those asserted in the '782 Petition, even if the overlap associated with these grounds is not as striking as the word-for-word similarity demonstrated in the above table.

Forcing Patent Owner to respond to multiple separate, redundant, petitions is unfair, harassing, unjustifiable, and contrary to the very goals set by Congress in establishing *inter partes* review proceedings, namely, furthering “the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings.” *See* 35 U.S.C. § 316(b).

Congress directed that the Director, and by extension the Board, “may not authorize an *inter partes* review to be instituted unless the Director determines that the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). This language of permission where certain conditions are met means that “Congress made institution discretionary.” *See Intelligent Bio-Systems, Inc. v. Illumina Cambridge Ltd.*, IPR2013-00324, Paper 19, 4 (Nov. 21, 2013). Moreover, Congress expressly intended for the Board to reject petitions that rely on art and arguments duplicative to those presented in other IPR petitions: “In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director may take into account whether, and reject the petition request because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d).

The Board has already, in several instances, exercised this discretion to reject similarly redundant petitions. For example, in *Intelligent Bio-Systems*, the Board found “[s]everal factors counsel[ed] against institution.” IPR2013-00324, Paper 19, 5-6 (explaining that in the first proceeding the Board instituted trial “on several grounds that mirror closely those presented in the [second] petition,” that the teachings of the purportedly new reference in the second petition were “substantially the same as those found” in two references from the first, and that the description of the new reference and claim charts used “exactly the same language” and “contain[ed] similar disclosures”).

The Board likewise denied several duplicative grounds in a second petition where the “very similar” obviousness grounds used a combination of references that had at least one reference in common with every ground instituted in an earlier proceeding. *SAS Institute, Inc. v. ComplementSoft, LLC*, IPR2013-00581, Paper 15, 21-22 (P.T.A.B. Dec. 30, 2013). In particular, the Board took the petitioner to task for “not explain[ing] why, even though both Oracle Primer [reference] and Oracle8 Primer [reference] were included in the first petition, these newly presented combinations were not raised in the prior petition.” *Id.* at 22. *See also*, *Medtronic, Inc. v. Nuvasive, Inc.*, IPR2014-00487, Paper 8 (P.T.A.B. Sept. 11, 2014) (rejecting redundant petition); *Prism Pharma Co., Ltd. v. Choongwae*



*Pharma Corp.*, IPR2014-00315, Paper 14 (P.T.A.B. July 8, 2014); *Unilever, Inc. v. Procter & Gamble Co.*, IPR2014-00506, Paper 17 (P.T.A.B. July 7, 2014).

Accordingly, the Board should reject this redundant Petition because it presents “substantially the same prior art or arguments” presented in at least one other Petition by the same Petitioner, thereby giving the Petitioner “two bites at the apple.” The Board has explained why instituting multiple petitions with redundant grounds does not comport with the Board’s statutory mandate or the Office’s rules:

Pursuant to 35 U.S.C. § 316(b), rules for *inter partes* review were promulgated that take into account their effect on “the economy, the integrity of the patent system, the efficient administration of the Office, and the ability of the Office to timely complete proceedings.” The Board’s rules provide that they are to be “construed to secure the just, speedy, and inexpensive resolution of every proceeding.” 37 C.F.R. § 42.1(b). ***The practice of a particular petitioner filing serial petitions challenging claims already involved in an instituted proceeding and asserting arguments and prior art previously considered by the Board is contrary to the goals set forth in our statutory mandate and implementing rules.***

*SAS Institute, Inc. v. ComplementSoft, LLC*, IPR2013-00581, Paper 15, 22-23 (P.T.A.B. Dec. 30, 2013) (denying the petition as to four grounds based on substantially the same prior art and arguments as an earlier petition) (emphasis added).

With this in mind, the Petitioner provides no explanation for how the arguments in this Petition are not substantially the same as those asserted in the IPR2015-01782 Petition—which they are, or why they were not presented in the IPR2015-01782 Petition—which they certainly could have been.

## VIII. CONCLUSION

For at least the reasons provided above, Patent Owner respectfully requests the Petition be denied.

Respectfully submitted,

Dated: Nov. 25, 2015

By: /Stephen B. Maebius/

Stephen B. Maebius  
Registration No. 35,264

Sunit Talapatra  
Registration No. 54,482

Foley & Lardner LLP  
Counsel for Patent Owner

Gerald J. Flattmann, Jr.  
Registration No. 37,324

Paul Hastings LLP  
Counsel for Patent Owner

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing Patent Owner's Preliminary Response was served on counsel of record on Nov. 25, 2015, by filing this document through the Patent Review Processing System as well as delivering a copy via email to the counsel of record for the Petitioner at the following addresses: WMentlik.ipr@ldlkm.com, MTeschner.ipr@ldlkm.com, BTomkins.ipr@ldlkm.com, and MFuller.ipr@ldlkm.com.

Date: Nov. 25, 2015

By: /Stephen B. Maebius/

Stephen B. Maebius  
Registration No. 35,264

Sunit Talapatra  
Registration No. 54,482

Foley & Lardner LLP  
Counsel for Patent Owner

Gerald J. Flattmann, Jr.  
Registration No. 37,324

Paul Hastings LLP  
Counsel for Patent Owner