UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CONOPCO, INC. d/b/a UNILEVER
Petitioner

v.

THE PROCTER & GAMBLE COMPANY
Patent Owner

Case IPR2013-00505
Patent 6,974,569

PATENT OWNER'S PRELIMINARY RESPONSE PURSUANT TO 37 C.F.R. § 42.107

Mail Stop "PATENT BOARD"
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

TABLE OF CONTENTS

Page

TABLE OF CONTENTS
(continued)

Page

TABLE OF AUTHORITIES

Page

CASES

TABLE OF AUTHORITIES
(continued)

Page

STATUTES

TABLE OF AUTHORITIES
(continued)

Page

OTHER AUTHORITIES

Statement of Material Facts in Dispute

Petitioner, Conopco, Inc. d/b/a Unilever (hereinafter, "Unilever"), did not submit a statement of material facts in its Petition. Accordingly, no response is due pursuant to 37 C.F.R. § 42.23(a), and no facts are admitted.

I. INTRODUCTION

The Board should deny Unilever's Petition in its entirety because of procedural and substantive defects. First, Unilever argues multiple alternate grounds for each of the challenged claims, and provides no meaningful distinction between them. Unilever argues ***two or three*** distinct and separate grounds for each of the challenged claims. This runs counter to a petitioner's obligation to present only its best case in a petition for *inter partes* review. Additionally, all but two of Unilever's nine proffered references were of record during prosecution and thus are cumulative under 35 U.S.C. § 325(d). Furthermore, Unilever ignores the file history of the '569 patent, wherein through submission of a Rule 132 declaration, Patent Owner overcame nearly identical arguments as those Unilever makes in this Petition. The Board should decline to consider these redundant and cumulative grounds and references.

Second, in order for the Board to grant Unilever's Petition, Unilever must prove that there is a reasonable likelihood that at least one of the claims challenged in the Petition is unpatentable. *See* 37 C.F.R. § 42.108(c). For several different reasons, Unilever's Petition fails to meet this standard for any of the challenged claims. For example, Unilever: (1) fails to properly establish inherency; (2) relies on expert testimony that is conclusory; (3) fails to provide sufficient reasons for combining references; and (4) fails to identify where each element of the claim is

found in the references. If the Board identifies any grounds of Unilever's Petition that are not redundant or cumulative, the Petition should be denied because Unilever has failed to meet its threshold burden to prove that there is a reasonable likelihood that at least one of the claims challenged in the Petition is unpatentable.

In view of the foregoing reasons, the Board should reject Unilever's Petition in its entirety.[1]

II. BACKGROUND OF THE '569 PATENT

The '569 patent relates to shampoo compositions that provide a superior combination of anti-dandruff and conditioning efficacy. At the time of the invention of the '569 patent, there was a consumer need for a shampoo with a superior combination of anti-dandruff efficacy and conditioning performance as compared to available products. Exh. 1001, '569 patent at 1:51-54. This combination was difficult to achieve. *Id.* at 1:54-55. The patent teaches that to obtain such a shampoo, one must formulate the composition with various components such that the composition meets certain claimed indices. The patent

[1] Should the Board institute proceedings in this matter, Patent Owner does not concede the legitimacy of any arguments in the Petition that are not specifically addressed herein. Patent Owner expressly reserves the right to rebut any such arguments in its Patent Owner Response.

first describes the components to be used in the composition. *Id.* at 4:13-32:32. The patent then describes the four claimed indices. *Id.* at 33:12-43:11.

A central concept of the '569 patent is that the combination of components must allow the shampoo to meet each of the claimed indices to maximize product performance, and, thus, consumer acceptance. As explained in the '569 patent:

> Applicants have found that four requirements must be satisfied in order to provide shampoo compositions which provide a superior combination of efficacy and conditioning. Particularly, (1) bioavailability and coverage of the anti-dandruff active are important to anti-dandruff efficacy; (2) comb-ability of wet hair and (3) clean hair feel are important to the consumer perception of well-conditioned hair; and (4) the inherent ability of the anti-dandruff active to inhibit the growth of microorganism has an impact on the anti-dandruff efficacy as well as overall consumer acceptance of the shampoo product.

Id. at 2:25-35.

To determine whether a shampoo composition meets each of these requirements, the '569 patent discloses four particular analytical methods: the "bioavailability/coverage index," the "first conditioning index," the "second conditioning index," and the "Minimal Inhibitory Concentration index." *See id.* at 33:26-43:11. The bioavailability/coverage index of a shampoo is indicative of its

anti-dandruff efficacy due to increased bioavailability and/or coverage of the anti-dandruff agent. *Id.* at 33:27-32. The first conditioning index relates to the quality of conditioning achieved by the shampoo by measuring the ease to comb wet hair. *Id.* at 36:12-17. The second conditioning index relates to the quality of conditioning achieved by the shampoo by determining the clean hair feel. *Id.* at 38:60-64. The Minimum Inhibitory Concentration index is indicative of anti-dandruff efficacy by measuring the ability of the anti-dandruff agent to inhibit the growth of microorganisms. *Id.* at 42:13-17.

The '569 patent has two independent claims, 1 and 29, which recite shampoo compositions comprising certain components, wherein the compositions meet the index values. For example, the shampoo composition of claim 1 comprises six components, defined as limitations a) through f), wherein the composition meets four index values, defined as limitations i. though iv.:

> 1. A shampoo composition comprising:
>
> a) from about 5% to about 50%, by weight, of an anionic surfactant;
>
> b) from about 0.01% to about 10%, by weight, of a non-volatile conditioning agent;
>
> c) from about 0.1% to about 4%, by weight, of an anti-dandruff particulate;

d) from about 0.02% to about 5%, by weight, of a cationic polymer;

e) water;

f) from about 0.1% to about 10%, by weight of the composition, of a suspending agent;

wherein said composition:

i. has a bioavailability/coverage index value, of at least about 1.25;

ii. has a first conditioning index value, of less than or equal to about 1.0;

iii. has a second conditioning index value, of at least about 1.5; and

iv. has a minimal inhibitory concentration index value, of at least about 0.125.

Thus, to meet the limitations of claim 1, a prior art reference or combination of prior art references must disclose a shampoo composition that contains each of the components a) through f) ***and*** that has each of the index values i. through iv. With the exception of claim 29, each of the other claims of the '569 patent ultimately depends from claim 1.

III. UNILEVER'S INDEX OF GROUNDS DOES NOT MATCH ITS SUBSTANTIVE ARGUMENTS

In Section VIII of the Petition, Unilever provides an index identifying the challenged claims in each ground. Petition at 6-7. The index and the headings for numerous individual grounds are inconsistent with the substantive arguments presented in the Petition. For example, the index states that Ground 13 challenges claims 1-12, 15, 17-19, 21-23, and 26-33 based on alleged obviousness over Bowser in view of Evans. But Ground 13 does not actually appear to include claims 31 and 33. The charts and text of Section VIII.K. covering Ground 13 include no arguments related to these claims. As another example, the index identifies Ground 2 as challenging claims 1-12, 15, 17-22, 28-30, and 32 based on alleged obviousness over Kanebo. It appears, though, that Ground 2 also challenges claims 23 and 26. The text and the charts Unilever provides in the section on Ground 2, Section VIII.B., include arguments regarding these claims. For purposes of this Preliminary Response, Patent Owner considers each ground as covering only claims explicitly addressed in the claim charts and/or text provided for each ground.

IV. THE BOARD SHOULD DECLINE TO CONSIDER MOST, IF NOT ALL, OF THE GROUNDS AND REFERENCES IN UNILEVER'S PETITION BECAUSE THEY ARE REDUNDANT AND CUMULATIVE

Unilever asserts multiple alternative grounds for all of the challenged claims, and provides no meaningful distinction between them. Additionally, Unilever relies almost exclusively on the same prior art and arguments that the PTO considered during prosecution of the '569 patent. Accordingly, the Board should decline to consider these redundant and cumulative grounds and references.

A. The Art Cited Against The '569 Patent Is Redundant

Unilever argues multiple alternative grounds of invalidity for ***each*** challenged claim, and with the exception of claims 24-28, Unilever argues ***three*** alternate grounds for each claim. The use of redundant art in an IPR petition contradicts regulatory and statutory mandates, and the Board should not consider redundant grounds. The Board made such a ruling in its Order (Redundant Grounds) in *Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, No. CBM2012-00003, Paper No. 7, Order (Redundant Grounds) at 1-2 (P.T.A.B. Oct. 25, 2012). In this Order, the Board identified numerous references that the petitioner applied in a redundant manner. The Board noted that the petitioner applied the redundant references "*without relative distinction*," such that the petitioner did not indicate whether any of the redundant references were any better

or worse than the others. *Id.* at 8 (emphasis added). For example, regarding the petitioner's application of multiple references to various claims of the patent at issue, the Board explained that "none of Kosaka, Black Magic, and Pettersen is stated by Petitioner to be a better reference than the other two references." *Id.* at 9. The Board thus recognized that the alleged teachings were *cumulative* and essentially *interchangeable* because the petitioner did not "articulate any relative strength [or weakness] for any one of the three references." *Id.* Consequently, the Board required the petitioner to choose only one of the three references. *Id.* at 9-10.

The Board has ruled in a similar manner in other decisions. *See Berk-Tek LLC v. Belden Techs. Inc.*, No. IPR2013-00057, Paper No. 21, Decision on Request for Rehearing at 4-5 (P.T.A.B. May 14, 2013) ("If the petitioner makes no meaningful distinction between certain grounds, the Board may exercise discretion by acting on one or more grounds and regard the others as redundant"… "allowing multiple grounds without meaningful distinction by the petitioner is contrary to the legislative intent"); *Oracle Corp. v. Clouding IP, LLC*, No. IPR2013-00075, Paper No. 8, Decision Institution of *Inter Partes* Review at 13-14 (P.T.A.B. May 3, 2013) (denying various grounds of unpatentability because they were redundant); *Amkor Tech., Inc. v. Tessera, Inc.*, No. IPR2013-00242, Paper No. 37, Decision Institution of *Inter Partes* Review at 32-33 (P.T.A.B. Oct. 11, 2013) (same).

In the instant Petition, Unilever has applied references in a cumulative and redundant manner, and has not provided any meaningful distinction between them. The Board should decline to consider Unilever's redundant grounds and references.

1. Kanebo, Reid, And Bowser/Evans Are Horizontally Redundant With Respect To Each Of The Challenged Claims

The Board has identified two types of redundancy – horizontal and vertical. Horizontal redundancy exists when multiple similar references are applied, not in combination to complement each other, but rather as distinct and separate alternatives. *Liberty Mutual*, CBM2012-00003, Paper No. 7, Order at 3. When a petitioner uses such distinct and separate alternatives to allegedly address the same claim limitations, and does not explain why one reference more closely satisfies the claim limitation at issue in some respects than another reference, the petitioner has applied the references in a redundant manner. *Id.* The Board defined horizontal redundancy as follows:

> [Horizontal redundancy] involves a plurality of prior art references applied not in combination to complement each other but as distinct and separate alternatives. All of the myriad references relied on provide essentially the same teaching to meet the same claim limitation, and the associated arguments do not explain why one reference more closely satisfies the claim limitation at issue in some respects than another reference, and vice versa.

> Because the references are not identical, each reference has to be better in some respect or else the references are collectively horizontally redundant.

Id. at 3.

The Board's unwillingness to consider references presented in a horizontally redundant manner demonstrates its aversion to art that is *cumulative* of other art presented to it, where the multiple references are essentially *interchangeable* and used to allegedly disclose the same claim features. In *Liberty Mutual*, the Board declined to consider numerous proposed grounds, finding them to include art that was horizontally redundant. *See generally id.* at 4-12.

Unilever's proposed rejections for independent claims 1 and 29 rely on multiple references as allegedly disclosing all of or the majority of the independent claim elements. For example, Unilever asserts, based on both alleged explicit and alleged inherent disclosures, that Kanebo purportedly anticipates claims 1 and 29. *See* Petition at 7-12. As distinct and separate alternatives, Unilever also proposes grounds of rejection for claims 1 and 29 that rely on Reid as well as the combination of Bowser and Evans. *See id.* at 29-36, 43-53.

Unilever's explanations of the alleged disclosures of these references as applied to the independent claims are substantively the same, further confirming the redundant, interchangeable nature of the references. For example, with respect

to claims 1 and 29, Unilever alleges that Kanebo, Reid, and the combination of Bowser and Evans each discloses a shampoo composition with the claimed components and index values. While not identical, as applied to claims 1 and 29 of the '569 patent, the disclosures of the references are substantively the same, with the references allegedly disclosing similar aspects used to accomplish similar objectives.

Unilever does not articulate any relative strength for these references, and concedes that the references share essentially the same weaknesses. For example, Unilever alleges that Kanebo discloses the claimed index values, limitations i. – iv. in claims 1 and 29, only by inherency:

> Kanebo discloses a shampoo formulation containing components in concentrations that fall within ranges recited in claims 1 and 29. The shampoo composition of Example 10 of Kanebo must necessarily have the index values recited in these claims.

Petition at 12. With respect to Reid as applied to claims 1 and 29, Unilever similarly alleges that the same claimed index values are only inherently disclosed:

> Reid discloses a shampoo formulation containing components in concentrations that fall within ranges recited in claims 1 and 29. The shampoo composition of Reid must necessarily have the index values recited in these claims.

Id. at 36. With respect to Bowser and Evans as applied to claims 1 and 29, Unilever again alleges that the same claimed index values are only inherently disclosed:

> As discussed above in Ground 1, the index values recited in claims 1 and 29 are simply an inherent feature of the composition recited in these claims.

Id. at 53. Unilever thus asserts that each of Kanebo, Reid, and Bowser/Evans inherently discloses the index values of claims 1 and 29. This is merely one example of Unilever's overlapping use of Kanebo, Reid, and Bowser/Evans in the Petition. Unilever alleges that all three references disclose the same features of the independent claims, and acknowledges that all of the primary references have similar weaknesses. Accordingly, Kanebo, Reid, and Bowser/Evans as applied to claims 1 and 29 of the '569 patent are substantively the same, making the references essentially interchangeable.

Even if Unilever asserts that the disclosures of Kanebo, Reid, and the combination of Bowser and Evans are not identical, they are still horizontally redundant. The Board has held that references may still be applied in a redundant manner even if their teachings are not identical. *See, e.g.*, *Liberty Mutual Ins. Co. v. Progressive Casualty Ins. Co.*, No. CBM2012-00003, Paper No. 9, Response to Order (Redundant Grounds) at 5 (P.T.A.B. Nov. 1, 2012). Although the

disclosures of Kanebo, Reid, and the combination of Bowser and Evans may not be identical, as shown above, Unilever has nevertheless applied them in a redundant manner: they are used to allegedly account for the *same features* of claims 1 and 29 of the '569 patent and are disclosed as sharing the *same weaknesses*.

Unilever applies Kanebo, Reid, and the combination of Bowser and Evans in a horizontally redundant manner. The Board should decline to consider the redundant grounds. This applies equally to the proposed grounds of unpatentability for dependent claims 2-28 and 30-33.

2. Grounds 8 And 10 Proposed For Claim 15, Based On Reid, Suffer From Vertical Redundancy

The Board has identified a second type of redundancy called vertical redundancy. Vertical redundancy exists when additional references are added to a base reference or combination of references without any apparent or explained need for the addition (*i.e.*, the base reference or combination of references is already alleged to disclose all elements of the claim, and no weaknesses are identified for the base reference or combination of references). *See*, *e.g.*, *Liberty Mutual*, CBM2012-00003, Paper No. 7, Order at 12. In *Liberty Mutual*, the Board defined vertical redundancy as follows:

> [Vertical redundancy] involves a plurality of prior art applied both in partial combination and in full combination. In the former case, fewer references than

> the entire combination are sufficient to render a claim obvious, and in the latter case the entire combination is relied on to render the same claim obvious. There must be an explanation of why the reliance in part may be the stronger assertion as applied in certain instances and why the reliance in whole may also be the stronger assertion in other instances. Without a bi-directional explanation, the assertions are vertically redundant.

Id. at 3. If one of the alternative grounds is better from all perspectives, then the Board should only consider the stronger ground and not burden the Patent Owner and the Board with the weaker ground. Further, if there is no difference in the grounds, the Petitioner should only assert one of the grounds. *Id*. at 12. "Only if the Petitioner reasonably articulates why each ground has strength and weakness relative to the other should both grounds be asserted for consideration." *Id.*

In the instant petition, Unilever alleges in Ground 8 that Reid renders the subject matter of claim 15 obvious. Ground 10 then adds Cardin to the combination used in Ground 8 against claim 15. This constitutes impermissible vertical redundancy because Unilever added Cardin to the base reference of Reid without any apparent or explained need for the addition. In other words, Unilever already alleges that a base reference discloses all elements of the claim, and does not identify any weaknesses for the base combination.

Unilever has applied Cardin in a redundant manner because it does not explain why it needed to add Cardin to augment the base grounds of rejection with regards to the "from about 0.3% to about 2% of said anti-dandruff particulate" limitation of claim 15. The Board should decline to consider the vertically redundant ground for this claim.

The following chart shows that horizontal redundancies exist for each of the claims. Vertical redundancies are shown for claim 15 with two Grounds in the same box.

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
1	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
2	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
3	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
4	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
5	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
6	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
7	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
8	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
9	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
10	Ground 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
11	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
12	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
13	Ground 3: Kanebo in view of Liu	Ground 9: Reid in view of Liu	Ground 14: Bowser in view of Evans and Liu[2]
14	Ground 4: Kanebo in view of Cardin	Ground 10: Reid in view of Cardin	Ground 15: Bowser in view of Evans and Cardin
15	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid Ground 10: Reid in view of Cardin	Ground 13: Bowser in view of Evans
16	Ground 4: Kanebo in view of Cardin	Ground 10: Reid in view of Cardin	Ground 15: Bowser in view of Evans and Cardin
17	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans

[2] The index at the beginning of Section VIII identifies Ground 14 as Bowser in view of Evans and ***Schwen***, but it actually appears to be based on Bowser in view of Evans and ***Liu***.

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
18	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
19	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
20	Ground 2: Kanebo	Ground 7 & 8: Reid	
21	Ground 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
22	Ground 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
23	Ground 1 & 2: Kanebo[3]	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
24		Ground 11: Reid in view of Coffindaffer	Ground 16: Bowser in view of Evans and Coffindaffer

[3] Claim 23 appears to be included in Ground 2, even though the index and heading for Ground 2 do not so indicate.

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
25		Ground 11: Reid in view of Coffindaffer	Ground 16: Bowser in view of Evans and Coffindaffer
26	Ground 1 & 2: Kanebo[4]		Ground 13: Bowser in view of Evans
27	Ground 5: Kanebo in view of Evans		Ground 13: Bowser in view of Evans
28	Ground 1 & 2: Kanebo		Ground 13: Bowser in view of Evans
29	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
30	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans

[4] Claim 26 appears to be included in Ground 2, even though the index and heading for Ground 2 do not so indicate.

Claim #	1st Proposed Ground	2nd Proposed Ground	3rd Proposed Ground
31	Ground 6: Kanebo in view of Schwen and Gibson	Ground 12: Reid in view of Schwen and Gibson	Ground 17: Bowser in view of Evans, Schwen and Gibson[5]
32	Ground 1 & 2: Kanebo	Ground 7 & 8: Reid	Ground 13: Bowser in view of Evans
33	Ground 6: Kanebo in view of Schwen and Gibson	Ground 12: Reid in view of Schwen and Gibson	Ground 17: Bowser in view of Evans, Schwen and Gibson[6]

B. Each Ground Is Cumulative Of A Prior Office Proceeding

In addition to the numerous redundant grounds identified above, the Petition relies upon substantially the same arguments and prior art that the Office considered and rejected during prosecution. Under Section 325(d), the Board need not and should not second-guess issues of patentability that the Office addressed

[5] Ground 13 does not appear to include claim 31, even though the index and heading for Ground 13 indicate that it does.

[6] Ground 13 does not appear to include claim 33, even though the index and heading for Ground 13 indicate that it does.

before issuing this patent. The Board should deny petitions that challenge a patent based on previously-rejected grounds and cumulative and duplicative art, otherwise petitioners will be given an unwarranted and unfair procedural advantage in pending infringement litigation. *See* 35 U.S.C. § 325(d).

Section 325(d) authorizes the Office to reject petitions or grounds for *inter partes* review that seek to reargue positions previously lost:

> 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 or request because, the same or substantially the same prior art or arguments previously were presented to the Office.

35 U.S.C. § 325(d) (emphasis added). The legislative history of Section 325(d) confirms that this is exactly what Congress intended. For instance, Senator Jon Kyl stated that Section 325(d) "allows the Patent Office to reject any request for a proceeding, including a request for ex parte reexamination, if the same or substantially the same prior art or arguments previously were presented to the Office with respect to that patent." 157 Cong. Rec. S1042 (daily ed. Mar. 1, 2011) (Statement of Sen. Kyl). The Board should reject the instant Petition because the Office already considered most of the asserted arguments and references.

In its Petition, Unilever makes arguments similar to those the Examiner raised and Patent Owner overcame during prosecution. For example, the Examiner rejected the pending claims based on an argument that compositions meeting each of the claimed component limitations will inherently meet each of the claimed index limitations. Exh. 1002 at 233. Patent Owner overcame this rejection by submitting a Rule 132 declaration. *See id.* at 256-59. Unilever's entire Petition is premised on the same, previously-rejected inherency argument.[7]

In addition to relying on previously-presented arguments, Unilever cites Kanebo, Reid, and the combination of Bowser and Evans, all of which were cited to the Office during prosecution of the '569 patent and are expressly listed on the face of the '569 patent.[8] These references are the sole basis for Grounds 1, 2, 7, 8, and 13. These previously-presented references also constitute the central basis for the remaining grounds, with the other references being cumulative of art already of record.

More specifically, Unilever uses Kanebo as an alleged anticipatory reference in Ground 1 for claims 1-9, 11, 12, 15, 17-19, 23, 26, 28-30, and 32, even though

[7] The inherency issue is discussed in more detail *infra* at Section V.B.2.

[8] The '569 patent lists on its face the U.S. counterpart to Evans (U.S. Patent No. 5,837,661).

Kanebo was previously presented to the Office (in Japanese with an English abstract). Similarly, Ground 7 uses Reid as an alleged anticipatory reference for claims 1-12, 15, 17-23, 29, 30, and 32, even though Reid was previously presented to the Office. In addition, in Ground 13, Unilever alleges that the combination of Bowser and Evans renders obvious claims 1-12, 15, 17-19, 21-23, and 26-33, even though both Bowser and Evans were previously presented to the Office.

In the remaining grounds, Unilever relies on Kanebo, Reid, or Bowser and Evans as primary references and adds additional, cumulative references. For example, in Grounds 4, 10, and 15, Unilever also relies on Cardin, which was not only cited, but expressly considered by the Office. In addition, Coffindaffer, a secondary reference for Grounds 11 and 16, was also previously presented to the Office, and Gibson, a secondary reference for Grounds 6, 12, and 17, was incorporated by reference into the application from which the ’569 patent issued.

The Office already considered Unilever’s inherency argument. Likewise, the Office already considered Kanebo, Reid, Bowser, and Evans, as well as many of the secondary references cited in the Petition. Contrary to Section 325(d), Unilever adds nothing substantively new to arguments previously made and rejected, and does not cast the references in a new light. The Board should deny each of the Grounds in the Petition under Section 325(d).

V. THE BOARD SHOULD REJECT UNILEVER'S PETITION BECAUSE IT FAILS TO ESTABLISH A REASONABLE LIKELIHOOD THAT AT LEAST ONE OF THE CLAIMS CHALLENGED IN THE PETITION IS UNPATENTABLE

As Petitioner, Unilever has the burden of proof to establish that it is entitled to its requested relief. 37 C.F.R. § 42.108(c). Here, Unilever must demonstrate a reasonable likelihood that at least one of the '569 patent claims would have been anticipated or obvious in view of the art cited in the Petition. Unilever "must specify where each element of the claim is found in the prior art patents or printed publications relied upon." 37 C.F.R. § 42.104(b)(4). The Board should reject any non-redundant, non-cumulative grounds that remain because Unilever fails to meet this burden.

A. Claim Construction

Pursuant to 37 C.F.R. § 42.100(b), and solely for the purposes of this review, Patent Owner construes the claim language such that the claims are given their broadest reasonable interpretation ("BRI") in light of the specification of the '569 patent.[9]

[9] The standard for claim construction at the Patent Office is different from that used during a U.S. district court litigation. *See In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364, 1369 (Fed. Cir. 2004). P&G expressly reserves the

In its "Claim Construction" section, Unilever proposes what it calls a BRI for each of the four claimed indices. Unilever, however, does not provide proposed claim constructions for any of these indices, nor does it describe what it contends is the exact scope of the BRI for any of these indices. Instead, Unilever, without explanation or support, merely suggests that the BRI of each of these claimed indices "encompasses" a test purportedly disclosed in the prior art, Petition at 3-4, without explaining what that means or applying it in any of the proposed grounds.

Unilever relies upon the conclusory declaration of its expert, Arun Nandagiri, a former Unilever employee, as its only purported support for these allegations. For example, Mr. Nandagiri states at paragraph 17:

> The claim term "bioavailability/coverage index value" encompasses results obtained in skin disk diffusion assays that were well known in 1999. *See* UNL 1023, 1337-1340. The '569 patent discloses a testing method where skin disks treated with shampoo compositions are contacted with agar plates and the average area colonized on the plate is assessed. UNL 1001, 34:42-36:10 The

(continued…)

right to argue a different claim construction in litigation for any term of the '569 patent, as appropriate in that proceeding.

> bioavailability/coverage test disclosed in the '569 patent is comparable to skin disk diffusion tests known in the art, such as those disclosed in Woods and Shin. UNL 1023, 1337-1340; UNL 1020, 6:58-7:17.

Exh. 1003 at ¶ 17. Mr. Nandagiri provides no support or basis for his conclusory statements. He does not explain how or why the prior art tests supposedly "encompass" the claimed bioavailability/coverage index. Nor does he explain how the results of the claimed bioavailability/coverage index are comparable to those of the prior art tests. Unilever attempts to support its BRI for the "first conditioning index," the "second conditioning index," and the "minimal inhibitory concentration index" with similar conclusory statements of Mr. Nandagiri. *See* Petition at 4; Exh. 1003 at ¶¶ 18-20. The Board should accord minimal weight to Mr. Nandagiri's unsupported conclusory statements. *See Hewlett-Packard Co. v. MCM Portfolio, LLC*, No. IPR2013-00217, Paper No. 10, Decision Institution of *Inter Partes* Review at 9 (P.T.A.B. Sept. 10, 2013) (Board gave "minimal weight" under 37 C.F.R. § 42.65 to conclusory expert testimony).

Patent Owner submits that the Board should construe the four claimed indices as explicitly described in the '569 patent, rather than in reference to different alleged prior art tests, as Unilever proposes. The '569 patent specification explains the methods for assessing each index in detail, specifically describing the principle behind each index, the equipment and materials needed to

analyze each index, the procedure to follow to perform each test, and the procedure for analyzing the results of each test. *See* Exh. 1001, '569 patent at 33:26-43:11. Nothing more is necessary.

B. The Board Should Deny Each Ground Of Unilever's Petition Because Unilever Fails To Show That Its Cited References Meet The Claimed Index Values Either Explicitly Or By Inherency

The Board should deny each ground of Unilever's Petition because Unilever fails to meet its burden to prove that its cited references disclose the claimed index values. Unilever concedes that none of its cited references explicitly disclose the claimed index values, and Unilever has not shown that these references inherently disclose those values. Unilever's inherency argument hinges on the assumption that all compositions that meet the component limitations of the '569 patent claims will also meet its index limitations. In fact, during prosecution, Patent Owner proved that assumption to be false.

1. Kanebo, Reid, And Bowser/Evans Do Not Explicitly Disclose The Claimed Index Values

In its Petition, Unilever alleges that each of its primary references, Kanebo, Reid, and the combination of Bowser and Evans, explicitly teach shampoo compositions that contain each of the components of claims 1 and 29. *See* Petition at 8-9, 30-32, and 44-47. Unilever does not, and cannot, allege, however, that these references explicitly disclose the claimed index limitations.

For example, with respect to Kanebo, Unilever provides a chart that allegedly shows how Example 10 meets each of the component limitations of claims 1 and 29. *See id.* at 8-9. As for the index value limitations, Unilever does not point to an explicit disclosure from Kanebo. Instead, it merely states "[s]ee discussion below." *Id.* at 9. In the discussion that follows, Unilever concedes that Kanebo does not explicitly disclose the index limitations because it resorts to inherency to allegedly prove that Kanebo meets those limitations. *See id.* at 12 ("[t]he shampoo composition of Example 10 of Kanebo must necessarily have the index values recited in these claims."). In a similar manner, Unilever concedes that Reid and the combination of Bowser and Evans do not explicitly teach the claimed index limitations. *See id.* at 33-36, 53.

2. The Board Should Deny Grounds 1, 7, And 13 Because Unilever Has Not Shown That Kanebo, Reid, Or Bowser/Evans Inherently Disclose The Claimed Index Values

(a) Unilever Fails To Meet Its Burden To Prove Inherency

The Board should deny Grounds 1, 7, and 13 of Unilever's Petition because Unilever fails to show that its cited references inherently meet the claimed indices. To establish inherency, "the extrinsic evidence must make clear that the missing descriptive matter is **necessarily** present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *In re Robertson*,

169 F.3d 743, 745 (Fed. Cir. 1999) (internal citations omitted) (emphasis added). "Inherency, however, may not be established by probabilities or possibilities." *Id*. "The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *Id*.

Unilever asserts in Ground 1 that Kanebo anticipates claims 1-9, 11, 12, 15, 17-19, 23, 26, 28-30, and 32. To support this allegation, Unilever argues that Kanebo's Example 10 discloses a formulation containing each of the composition elements of claims 1 and 29 of the '569 patent. Petition at 12. Unilever next alleges that "[t]he shampoo composition of Example 10 of Kanebo must necessarily have the index values recited in these claims." *Id*. Unilever makes similar statements with respect to Reid (Ground 7) and the combination of Bowser and Evans (Ground 13). *Id.* at 29-30, 53. Thus, with respect to the index values recited in claims 1 and 29, Unilever asserts that Kanebo, Reid, and Bowser/Evans each anticipate by inherency.

Unilever bears the burden to show that each of the asserted prior art compositions necessarily meets the claimed index values. *See* 37 C.F.R. § 42.104(b)(4). Unilever has failed to meet that burden. First, Unilever provides no support for its conclusory assertions of inherency, and instead relies only on assumptions. Unilever contends that because Kanebo, Reid, and Bowser/Evans allegedly disclose shampoo formulations containing components in concentrations

that fall within the ranges recited in claims 1 and 29, these compositions should be assumed to have the index values recited in those claims. Such assumptions do not establish inherency. *See, e.g.*, *Crown Operations Int'l, Ltd. v. Solutia Inc.*, 289 F.3d 1367, 1377-78 (Fed. Cir. 2002) (holding that inherency cannot be proven by the mere assertion that because a prior art reference discloses the same structure as the patent, that the prior art should be assumed to have a resulting claimed property).

Unilever attempts to bolster its inherency arguments by relying on Mr. Nandagiri's declaration. *See* Petition at 12, 36, and 53. Mr. Nandagiri does not, however, provide any support for his assertions. The Board should not consider Unilever's inherency arguments that rely on Mr. Nandagiri's declaration because the statements contained therein are merely conclusory.

By way of example, Mr. Nandagiri states in paragraph 50:

> It is my understanding that an old formulation does not become patentable through the claiming of potentially new properties of the formulation. Example 10 of Kanebo shows that the shampoo composition of claims 1 and 29 is an old formulation. Kanebo discloses a shampoo formulation containing components in concentrations that fall within ranges recited in claims 1 and 29. The shampoo composition of Example 10 of Kanebo must necessarily have the index values recited in

> these claims, because Example 10 of Kanebo discloses the same formulation that the '569 [sic] discloses as having the claimed index values. Claims 2-9 depend from claim 1 but only claim different index values and do not add any components to or change any concentrations of the shampoo composition of claim 1. So, Example 10 of Kanebo must also necessarily have the index values recited in claims 2-9.

Exh. 1003 at ¶ 50. Mr. Nandagiri provides no support or basis for his conclusory statements. Similarly, in paragraph 104, Mr. Nandagiri states that "Reid discloses a shampoo formulation containing components in concentrations that fall within ranges recited in claims 1 and 29. The shampoo composition of Reid must necessarily have the index values recited in these claims." *Id.* at ¶ 104. Mr. Nandagiri again provides no support or basis for his statements. The Board should accord no weight to Mr. Nandagiri's unsupported, conclusory statements. *See Motorola, Inc. v. Interdigital Tech. Corp.*, 121 F.3d 1461, 1473 (Fed. Cir. 1997) ("An expert's conclusory testimony, unsupported by the documentary evidence, cannot supplant the requirement of anticipatory disclosure in the prior art reference itself"); *Hewlett-Packard*, No. IPR2013-00217, Paper No. 10, Decision Institution of *Inter Partes* Review at 9 (Board gave "minimal weight" under 37 C.F.R. § 42.65 to conclusory expert testimony).

(b) Patent Owner Overcame A Similar Inherency Argument During Prosecution

Unilever's inherency argument also fails because Patent Owner already demonstrated to the Office that not all compositions that meet the component limitations of the '569 patent claims will meet the claimed index limitations. Specifically, during prosecution, Patent Owner overcame the Examiner's rejection over another prior art reference based on an inherency argument very similar to the argument Unilever makes in the Petition. In an Office Action dated December 7, 2004, the Examiner rejected the claims as being obvious over the combination of Ramachandran *et al.* (WO 96/29983) in view of Cardin. In the Office Action, the Examiner admitted that the references did not explicitly teach the index values. Exh. 1002 at 232. Instead, like Unilever does now, the Examiner relied on inherency:

> The prior art teaches shampoo compositions which essentially contain the same ingredients, used for the same field of endeavor and applied in similar amounts as those claimed by Applicant. Thus, since, in essence, the shampoo composition of Ramachandran *et al.* is quite similar to that being claimed, it would be expected that the shampoo composition of Ramachandran *et al.* would also impart similar properties [the claimed index values] attainable through the employment of those same ingredients.

Id. at 233.

In its response to this Office Action, Patent Owner submitted a declaration establishing that a shampoo composition containing components in concentrations that fall within the ranges recited in claim 1 does not necessarily have index values within the claimed ranges. *See id.* at 256-59. Specifically, Patent Owner created two formulations, Formula D and Formula E. *Id.* at 258. Formula D was representative of the claimed invention. *Id.* It included, as the cationic polymer required for limitation d) of claim 1, a low molecular weight guar. *Id.* Formula E had the same components as Formula D, except that it used a higher molecular weight guar in place of the low molecular weight guar. *Id.* The higher molecular weight guar used in Formula E also met limitation d) of claim 1. Patent Owner tested both formulations for the second conditioning index according to the methods described in the '569 patent and found that Formula D met the required criteria for the second conditioning index, while Formula E did not. *Id.* Thus, the declaration showed that a composition that meets each of the component limitations of the '569 patent does not necessarily meet each of the index limitations.[10] In light of P&G's declaration and accompanying argument, the

[10] Patent Owner's declaration also established that even assuming that the formulations in Ramachandran and Cardin met the component limitations a)

Examiner issued a Notice of Allowance. *Id.* at 266-67. Thus, the Office considered and rejected the inherency argument during prosecution, and Unilever's inherency argument fails as well.

Instead of relying on unsupported assumptions and speculation, Unilever could have tried to meet its burden by formulating the shampoo compositions described in the asserted references and testing them to determine whether they meet the claimed index values. Unilever chose not to do so. *See Crown*, 289 F.3d at 1378, n.4 (rejecting an inherency argument where the party did not go the "direct route" by implementing and testing an embodiment of the prior art).

Without any evidence showing that the compositions disclosed in Kanebo, Reid, and Bowser/Evans necessarily meet the claimed index values, Unilever lacks "a basis in fact and/or technical reasoning to reasonably support" its inherency argument. *Ex parte Levy*, 17 U.S.P.Q. 2d 1461, 1464 (B.P.A.I. 1990) ("In relying upon the theory of inherency, the [Petitioner] must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior

(continued…)

through f) of claim 1 of the '569 patent, those shampoo compositions did not meet all of the index limitations i. through iv.

art."); *see also* M.P.E.P. § 2112(IV). The Board should reject Unilever's assertion that the compositions disclosed in Kanebo, Reid, and Bowser/Evans must necessarily meet the claimed index values.

3. The Board Should Deny Grounds 2-6 And 8-17 Because Unilever Has Not Shown That The Claimed Index Values Would Have Been Obvious Over Kanebo, Reid, Or Bowser And Evans

Recognizing the weakness of its inherency arguments, Unilever hedges its bets and contends that even if the claimed index values were not inherent in the disclosures of Kanebo alone, Reid alone, and the combination of Bowser and Evans, the claimed index values would have been obvious to a POSA in view of those references. *See, e.g.*, Petition at 18 ("[i]f the Board were to find that the shampoo formulation of Example 10 of Kanebo does not meet one of the claimed index values, a POSA would have had a reasonable expectation of success in arriving at a shampoo that met all four index values without undue experimentation."). Unilever's obviousness arguments are unavailing.

Unilever supports its obviousness arguments by contending that the methods to obtain the index values and the index values themselves were known in the art, such that a POSA would have had a reasonable expectation of success in arriving at the shampoo compositions that met all four index values. *See, e.g.*, Petition at 18. Specifically, Unilever contends that "a POSA would have had a reason to

arrive at the index values claimed, as the index values were known in the art to be associated with the properties of anti-dandruff and conditioning shampoos." *Id*. Unilever's argument is flawed. The prior art tests are not the same as the claimed indices, and even if they were, which Patent Owner does not concede, Unilever has provided no reason why a POSA would even know to look at all four indices together to improve anti-dandruff shampoos.

First, Unilever fails to show that the prior art tests are the same as the claimed indices. As explained above, Unilever relies upon the Nandagiri declaration to assert that certain references, namely Shin and Hoshowski, disclose tests that are "comparable" to the claimed indices. Mr. Nandagiri's statements, however, are conclusory. For example, in Paragraph 81, Mr. Nandagiri states that "Experimental Example 2 of Shin discloses a test comparable to the bioavailability/coverage test disclosed in the '569 patent and provides product sample results that give an index value of 3.54." *See* Exh. 1003 at ¶ 81. Mr. Nandagiri does not explain how the Shin test is comparable to the bioavailability/coverage index, or even what "comparable" means. Nor does he explain how Shin's index value of 3.54 would equate to any of the claimed values of the bioavailability/coverage index. Similarly, as to the Minimal Inhibitory Concentration index ("MIC"), Mr. Nandagiri states that "Experimental Example 1 of Shin discloses an MIC test comparable to MIC test disclosed in the '569 patent

and provides product sample results that are about 0.50." *Id.* Again, Mr. Nandagiri does not explain how the Shin test is comparable to the Minimal Inhibitory Concentration index, or even what "comparable" means. Nor does he explain how Shin's index value would convert to a value measured using the Minimal Inhibitory Concentration index.

Even if the Board were to find that the tests taught in Shin and Hoshowski are the same as the methods disclosed in the '569 patent, which not even Unilever contends, Unilever provides no reason why a POSA would consider preparing a shampoo composition meeting ***all four*** of the claimed index values. No single reference discloses all of the claimed index values together, and Unilever has not shown any evidence that the prior art recognized the benefit of meeting all four indices at once. As the Examiner noted in the Reasons For Allowance, formulating the claimed components such that the composition meets each of the claimed index values was a central aspect of the invention of the '569 patent:

> The instant invention demonstrates an improvement over prior art formulations due to the surprising and beneficial results that are attained through these index criteria . . . The instant invention provides for increased bioavailability, increased coverage and a superior combination of anti-dandruff efficacy and conditioning performance over prior art formulations through the

> instant combination of ingredients and index value requirements.

Exh. 1002 at 266-67.

Unilever's obviousness arguments also fail because Unilever points to no flaws or shortcomings in the disclosures of Kanebo, Reid, or the combination of Bowser and Evans that would motivate a POSA to consider the index values in the manner described and claimed in the '569 patent. Unilever does not argue that the shampoo compositions disclosed by the references were ineffective in treating dandruff and conditioning the hair. In the absence of the recognition of a problem, there is no reason for a POSA to attempt to improve on the prior art. *See, e.g.*, *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1354 (Fed. Cir. 2013) ("because neither Dikstein nor Serup recognized or disclosed the stability problem, the record shows no reason for one of ordinary skill in the art to attempt to improve upon either Dikstein or Serup using Turi."). Thus, without the recognition of a problem, there is no reason (other than improper hindsight) for a POSA to attempt to improve on Kanebo, Reid, Bowser, or Evans in order to produce the shampoo compositions described and claimed in the '569 patent.

Because a shampoo composition containing each of the claimed indices would not have been obvious in view of Kanebo, Reid, or the combination of Bowser and Evans, the Board should deny Grounds 2-6 and 8-17.

C. The Board Should Deny Ground 7 Because Reid Does Not Disclose Each And Every Limitation Of The Challenged Claims

The Board should deny Ground 7 because not only does Reid not inherently disclose the claimed index values, it also does not disclose each and every composition limitation. In Ground 7, Unilever incorrectly asserts that Reid anticipates claims 1-12, 15, 17-23, 29, 30, and 32 of the '569 patent because Reid purportedly discloses shampoo formulations "having all of the components recited. . . at concentrations falling within the ranges claimed." Petition at 35. Unilever's contention is wrong for multiple reasons.

First, the ranges disclosed in Reid do not provide sufficient specificity to anticipate the claimed ranges because many of Reid's ranges are not the same as the claimed ranges, but merely overlap them. A prior art reference that overlaps a claimed range must disclose the claimed range with "sufficient specificity" to constitute an anticipation. *See* MPEP § 2131.03. Reid's disclosure does not teach the claimed ranges with sufficient specificity to constitute an anticipation. *See Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 1000 (Fed. Cir. 2006) (holding that the district court erred in finding that the prior art anticipated the claimed range where the prior art range only overlapped the claimed range and did not describe the entire claimed range with sufficient specificity).

As an example, claim 1 specifies "from about 5% to about 50%, by weight, of an anionic surfactant." Reid's disclosure of "from 2 to 40% by weight of surfactant selected from the group consisting of anionic, nonionic, amphoteric and surfactant mixtures thereof" overlaps the claimed range and does not provide sufficient specificity to anticipate. *See* Exh. 1018, Reid at 8:11-21. Specifically, the weight percentage at the top end of the claimed range is 20% larger than the top end of Reid's range. As such, Reid's range does not provide sufficient specificity to anticipate the claimed range. *See Atofina*, 441 F.3d at 1000.

Other of Reid's disclosed ranges merely overlap the claimed ranges:

- Claim 1 specifies "from about 0.02% to about 5%, by weight, of a cationic polymer." Reid discloses "from 0.01 to 3% by weight of cationic conditioning polymer." Exh. 1018, Reid at 8:11-21.
- Claim 29 specifies "from about 0.01% to about 5%, by weight of the composition, of an insoluble, non-volatile silicone conditioning agent." Reid discloses "from 0.1 to 10% by weight of an insoluble, non-volatile silicone." Exh. 1018, Reid at 8:11-21.

In addition, Reid does not anticipate the claims of the '569 patent because it teaches broad ranges that subsume the narrower claimed ranges, but does not provide sufficient specificity to disclose them. A broad prior art range that subsumes a narrow claimed range does not anticipate the claimed range if it does

not provide sufficient specificity. *Atofina*, 441 F.3d at 999. For example, Reid discloses "from 2 to 40% by weight" of an anionic surfactant, while claim 29 of the '569 patent discloses "from about 10% to about 25%, by weight, of an anionic surfactant." *See* Petition at 30. Reid's disclosure of a broad range of 2 to 40% does not provide sufficient specificity to anticipate the much narrower claimed range. *See Atofina*, 441 F.3d at 999 (holding that the district court erred in finding that a prior art range of 100-500°C anticipated a claimed range of 330-450°C).

Reid also does not anticipate the challenged claims because it does not disclose each and every element of claims 1 and 29 arranged as in the claims. In order to anticipate, a prior art reference "must not only disclose all elements of the claim within the four corners of the document, but must also disclose those elements 'arranged as in the claim.'" *Net Moneyin, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008) (quoting *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983). Reid does not contain all of the limitations as arranged in the claim. Instead, Unilever cobbles together particular elements of different disclosures, including elements from the disclosures of claim 1, column 4, column 5, and examples 2-5 of Reid in an attempt to meet each of the composition limitations. *See* Petition at 30-31. Unilever provides no reason why a POSA would pick and choose these particular elements to be combined into one

composition in the claimed amounts. Reid does not anticipate the challenged claims.

Because Reid does not disclose each and every limitation of claims 1-12, 15, 17-23, 29, 30, and 32, the Board should deny Ground 7.

D. The Board Should Deny Grounds 2 And 8 Because A POSA Would Have No Motivation To Modify Kanebo Or Reid To Arrive At The Claimed Compositions

In Ground 2, Unilever argues that claims 1-12, 15, 17-23, 26, 28-30, and 32 would have been obvious to a POSA over Kanebo alone, even if Kanebo does not inherently disclose the index values. Petition at 17. Similarly, in Ground 8, Unilever asserts that claims 1-12, 15, 17-23, 29, 30, and 32 would have been obvious to a POSA over Reid alone, even if Reid does not inherently disclose the index values. *Id.* at 38. A POSA, however, would neither envisage the claimed invention from Kanebo or Reid, nor be motivated to develop it from Kanebo or Reid, because Kanebo, Reid and the '569 patent focus on solving different problems. The '569 patent focuses on providing a superior combination of anti-dandruff efficacy and conditioning in a shampoo composition. Exh. 1001, '569 patent at 2:44-46 ("It is an object of the present invention to provide shampoo compositions, which provide a superior combination of anti-dandruff efficacy and conditioning.") In contrast, Reid focuses on the goal of combining shampoo and conditioning functions into one composition. Exh. 1018, Reid at 1:51-58 ("We

have found that the combination of an aqueous emulsion of a silicone oil with a particular type of cationic conditioning polymer in a surfactant-based shampoo composition will impart improved conditioning benefit to the hair . . . without the need for a two-step washing and conditioning procedure."). Kanebo focuses on providing "a pearl lustre composition exhibiting excellent usability and conditioning effect to the hair or the like, having an excellent pearl lustre and showing an excellent dispersing stability." Exh. 1006, Kanebo at ¶ 0004. Anti-dandruff efficacy is not a goal of Kanebo or Reid, and anti-dandruff agents are merely one of many optional components. *See* Exh. 1006, Kanebo at ¶¶ 37-38; Exh. 1018, Reid at 5:10-20.

A prior art reference that does not address the same problem as the claimed invention may not support a finding of obviousness. *See, e.g.*, *Broadcom Corp. v. Emulex Corp.*, 732 F.3d 1325, 1334 (Fed. Cir. 2013) (finding that a prior art reference that did not address the same problem as the patented invention did not render the invention obvious). Unilever offers no reason why a POSA would have been motivated to modify the teachings of Kanebo or Reid in an effort to arrive at shampoo compositions that meet each of the claimed index values, especially those particularly addressing anti-dandruff efficacy. Because there is no motivation for a POSA to modify Kanebo or Reid to meet the challenged claims, those claims are not obvious over Kanebo or Reid, and the Board should deny Grounds 2 and 8.

E. The Board Should Deny Grounds 13-17 Because Unilever Employs Impermissible Hindsight To Arrive At The Claimed Compositions

Unilever contends in Ground 13 that claims 1-12, 15, 17-19, 21-23, 26-30, and 32 would have been obvious over Bowser in view of Evans. The combination of Bowser and Evans also forms the basis for Grounds 14-17. Unilever contends that a POSA would have had a "reasonable expectation of success" in arriving at the claimed subject matter because Bowser and Evans "teach each of the components of these claims and teach concentration ranges of those components overlapping the claimed concentration ranges." Petition at 52. Unilever's argument fails, however, because Unilever arrives at the claimed compositions by cherry picking from various disclosures of Bowser and Evans with the aid of hindsight.

To try to arrive at the claimed composition, Unilever combines various particular elements, including both the composition components and their respective percentage weight ranges, from different portions of Bowser and Evans. For example, Unilever selects elements from claims 1 and 4-6 of Bowser to be combined with disclosures from claim 1 and pages 11, 24, and 25 of Evans. Petition at 44-46. Neither Bowser nor Evans suggest arranging the components in the claimed manner. Unilever provides no reason why a POSA would pick and

choose from these various disclosures of Bowser and Evans to try to arrive at the claims of the '569 patent.

Unilever's strategy of picking specific disclosures from Bowser and Evans with the aid of hindsight in order to arrive at compositions of the challenged claims is improper. *See, e.g.*, *Ecolochem, Inc. v. Southern California Edison Co.*, 227 F.3d 1361, 1371 (Fed. Cir. 2000) ((" [One] 'cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.'") (quoting *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988)); *In re Kahn*, 441 F.3d 977, 986 (Fed. Cir. 2006) ("mere identification in the prior art of each element is insufficient to defeat the patentability of the combined subject matter as a whole.") (citing *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)). Unilever inappropriately relies on hindsight in an attempt to prove obviousness of the claimed invention over the combination of Bowser and Evans. As such, the Board should deny Grounds 13-17.

F. Unilever's Petition Contains Insufficient Reasons For Combining The References In Grounds 3-6 And 9-17

In Grounds 3-6 and 9-17, Unilever makes bare assertions of obviousness, without any explanation of why a POSA would have combined the references. When assessing a proposed obviousness rejection, the Office must make "a searching comparison of the claimed invention – ***including all its limitations*** –

with the teachings of the prior art[.]" *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995) (emphasis added). But a teaching of all limitations is not enough. Rather, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness[.]" *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Unilever fails to establish a *prima facie* case of obviousness because, *inter alia*, the Petition does not provide articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *Id.* Instead, Unilever uses the claims of the '569 patent as a roadmap, and simply picks and chooses ingredients and attributes from the alleged prior art. Unilever offers only conclusory allegations as to why a POSA would combine the prior art in the manner asserted.

For example, Unilever supports its allegation in Ground 5 that Kanebo is combinable with Evans simply by alleging that "[a] POSA would have had a reason to combine the teachings of Kanebo and Evans, as both references teach anti-dandruff conditioning shampoos, and as a POSA would have looked to Evans for an alternative polyethylene glycol to that disclosed in Kanebo." Petition at 27. Unilever provides no further basis or reasoning for combining the two references.

This bare conclusory statement does not satisfy the legal principles the Supreme Court articulated in *KSR* because it fails to provide "some articulated

reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR*, 550 U.S. at 418 (quoting *Kahn*, 441 F.3d at 988). Even if Kanebo and Evans both relate to anti-dandruff conditioning shampoos, which Patent Owner does not concede, that is insufficient evidence of a motivation to combine. *See Heart Failure Techs., LLC v. Cardiokinetix, Inc.*, No. IPR2013-00183, Paper No. 12, Decision Denying Institution of *Inter Partes* Review at 9 (P.T.A.B. July 31, 2013) (citing *KSR*, 550 U.S. at 418) ("The fact that [the prior art references] all concern human heart repair is not in itself sufficient rationale for making the combination. . . Petitioner must show some *reason* why a person of ordinary skill in the art would have thought to combine *particular* available elements of knowledge, as evidenced by the prior art, to reason the claimed invention.") (emphasis in original); *Sipnet EU S.R.O. v. Straight Path IP Group, Inc.*, No. IPR2013-00246, Paper No. 11, Decision Institution of *Inter Partes* Review at 20 (P.T.A.B. Oct. 11, 2013) (finding that the mere fact that references concern the same subject matter is insufficient to support an allegation of obviousness).

Unilever's Petition is replete with conclusory statements regarding the purported motivation to combine:

- Ground 3: "A POSA would have had a reason to combine the teachings of Kanebo and Liu, as both references teach anti-dandruff shampoos, and a POSA would have looked to Liu for alternative anti-dandruff agents that could be used in the formulations of Kanebo."
- Ground 4: "A POSA would have had a reason to combine the teachings of Kanebo and Cardin, as a POSA would have looked to Cardin for further information about the active ingredient in Kanebo, ZPT."
- Ground 6: "A POSA would have had a reason to combine the teachings of Kanebo, Schwen and Gibson as the references disclose shampoos and conditioners for treatment of the scalp."
- Ground 9: "A POSA would have had a reason to combine the teachings of Reid and Liu, as both references teach anti-dandruff shampoos, and as a POSA would have looked to Liu for alternative anti-dandruff agents that could be used in compositions of Reid."
- Ground 10: "A POSA would have had a reason to combine the teachings of Reid and Cardin because both references teach shampoo

compositions that are effective in cleaning and conditioning hair while also treating dandruff."

- Ground 11: "A POSA would have had reason to combine the teachings of Reid and Coffindaffer as both references teach conditioning shampoos containing anionic surfactants, anti-dandruff agents and cationic polymers."
- Ground 12: "A POSA would have had a reason to combine the teachings of Reid, Schwen and Gibson as the references disclose shampoos and conditioners for treatment of the scalp."
- Ground 13: "A POSA would have had a reason to combine the teachings of Bowser and Evans. Both Bowser and Evans teach conditioning anti-dandruff shampoos, and a POSA would look to Evans for alternative concentrations of components of those shampoos."
- Ground 14: "A POSA would have had a reason to combine the teachings of Bowser, Evans and Liu, as all three references teach anti-dandruff shampoos."
- Ground 15: "A POSA would have had reason to combine the teachings of Bowser, Evans and Cardin because all three references

teach shampoo compositions that are effective in cleaning and conditioning hair while also treating dandruff."

- Ground 16: "A POSA would have had reason to combine the teachings of Bowser, Evans and Coffindaffer as all three references teach conditioning shampoos containing anionic surfactants, anti-dandruff agents and cationic polymers."
- Ground 17: "A POSA would have had reason to combine the teachings of Bowser, Evans, Schwen and Gibson as the references disclose shampoos and conditioners for treatment of the scalp."

Petition at 24, 25, 29, 39-43, 54-58. In his declaration, Mr. Nandagiri simply repeats these same conclusory statements. *See* Exh. 1003 at ¶¶ 88, 90, 94, 115, 117, 121, 123, 127, 136, 138, 140, and 143.

In view of the lack of any articulated reason or motivation to combine, Unilever's Petition fails to provide proper obviousness assertions. Accordingly, the Board should deny the proposed obviousness combinations in Grounds 3-6 and 9-17.

VI. OBJECTIVE INDICIA OF NON-OBVIOUSNESS

If the Board institutes proceedings on any ground of the instant Petition based on alleged obviousness of the '569 patent, Patent Owner will submit objective evidence of non-obviousness. For example, Patent Owner will show that

a shampoo composition that meets all four of the index value limitations provides unexpected results over the prior art. As the Examiner noted in the Reasons For Allowance: "[t]he instant invention demonstrates an improvement over prior art formulations due to the surprising and beneficial results that are attained through these index criteria." Exh. 1002 at 266. In addition, Patent Owner will provide evidence of commercial success of products that practice the '569 patent, including many of Patent Owner's Head & Shoulders® dandruff shampoo products.

VII. CONCLUSION

For the foregoing reasons, Unilever's Petition should be rejected in its entirety. Unilever's Petition has several fatal substantive defects and fails to meet the minimum threshold required for institution of an *inter partes* review. The Board should deny Unilever's Petition and not institute proceedings in this matter.

November 15, 2013 Respectfully submitted,

/s/ *David M. Maiorana*
David M. Maiorana (Reg. No. 41,449)
John V. Biernacki (Reg. No. 40,511)
Michael S. Weinstein (Reg. No. 62,446)
JONES DAY
North Point
901 Lakeside Avenue
Cleveland, Ohio 44114-1190
Tel: (216) 586-3939 / Fax: (216) 579-0212

Steven W. Miller (Reg. No. 31,984)
Kim W. Zerby (Reg. No. 32,323)
Carl J. Roof (Reg. No. 37,708)
Angela K. Haughey (Reg. No. 56,373)
THE PROCTER & GAMBLE COMPANY
299 E. Sixth Street; Cincinnati, Ohio 45202
Tel: (513) 983-1100 / Fax: (513) 945-2729

Attorneys For Patent Owner
The Procter & Gamble Comapny

CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned certifies that on November 15, 2013, a copy of the foregoing Patent Owner's Preliminary Response Pursuant to 37 C.F.R. § 42.107, including any attachments, lists, appendices and exhibits, was served by electronic mail (per the parties' agreement), on the following counsel of record for Petitioner:

Eldora L. Ellison, Esq.
eellison-PTAB@skgf.com
Robert G. Sterne, Esq.
rsterne-PTAB@skgf.com
STERN, KESSLER, GOLDSTEIN & FOX
1100 New York Avenue, N.W.
Washington, DC 20005

/s/ *David M. Maiorana*
David M. Maiorana
Registration No. 41,449
JONES DAY
North Point
901 Lakeside Avenue
Cleveland, Ohio 44114-1190

Attorney For Patent Owner
The Procter & Gamble Company