Filed: June 30, 2017

Filed on behalf of
Patent Owner Nobel Biocare Services AG
By: Michelle E. Armond
John B. Sganga, Jr.
Rabinder N. Narula
Sheila N. Swaroop
KNOBBE, MARTENS, OLSON & BEAR, LLP
2040 Main Street, 14th Floor
Irvine, CA 92614
Telephone: 949-760-0404
Facsimile: 949-760-9502
Email: BoxNOBELBL@knobbe.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INSTRADENT USA, INC.
Petitioner

v.

NOBEL BIOCARE SERVICES AG
Patent Owner.

Case No. IPR2015-01786
U.S. Patent No. 8,714,977

PATENT OWNER'S NOTICE OF APPEAL TO THE U.S. COURT OF APPEALS FOR THE FEDERAL CIRCUIT

Pursuant to 35 U.S.C. §§ 141(c), 142, and 319, 37 C.F.R. §§ 90.2(a) and 90.3, and Rule 4(a) of the Federal Rules of Appellate Procedure, Patent Owner Nobel Biocare Services AG ("Patent Owner") hereby appeals to the United States Court of Appeals for the Federal Circuit from the Final Written Decision (Paper 106) entered on February 15, 2017 (Attachment A), the Decision Denying Patent Owner's Request for Rehearing (Paper 109) entered on May 10, 2017 (Attachment B), and from all underlying orders, decisions, rulings, and opinions that are adverse to Patent Owner related thereto and included therein, including those within the Decision on Institution of *Inter Partes* Review, entered February 19, 2016 (Paper 14).

In particular, Patent Owner identifies that the following issues on appeal include, but are not limited to: the determination of unpatentability of Claims 1–5 and 19 of U.S. Patent No. 8,714,977 under 35 U.S.C. § 102; the claim construction of a "coronal region having a frustoconical shape" and "surface configured to be in contact with bone"; the finding that the ABT Catalog qualified as prior art; the denial of Patent Owner's Motion to Exclude Evidence and allowance of new evidence, arguments, and theories after Patent Owner filed its Response Brief (Paper 40); the constitutionality of the proceeding; any finding or determination supporting or relating to these issues; and all other procedural and substantive

issues decided adversely to Patent Owner in any order, decision, ruling, or opinion by the Board in this proceeding.

Patent Owner is concurrently providing true and correct copies of this Notice of Appeal, along with the required fees, with the Director of the United States Patent and Trademark Office and the Clerk of the United States Court of Appeals for the Federal Circuit.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: June 30, 2017

By: /Michelle E. Armond/
John B. Sganga, Jr. (Reg. 31,302)
Rabinder N. Narula (Reg. No. 53,371)
Sheila N. Swaroop (Reg. No. 53,658)
Michelle E. Armond (Reg. No. 53,954)
Attorneys for Patent Owner
Nobel Biocare Services AG

CERTIFICATE OF SERVICE

I hereby certify that the original of this Notice of Cross Appeal was filed via U.S.P.S. Priority Mail Express on June 30, 2017 with the Director of the United States Patent and Trademark Office at the address below:

Office of the General Counsel
Director of the U.S. Patent & Trademark Office
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Priority Mail Express Tracking No.: EF 178965561 US

A copy of this Notice of Cross Appeal is being filed and served on June 30, 2017 as follows:

To the USPTO Patent Trial and Appeal Board:
Patent Trial and Appeal Board
Madison Building East
600 Dulany Street
Alexandria, VA 22313

(*via PTAB E2E – as authorized by the Board*)

To the U.S. Court of Appeals for the Federal Circuit:
Clerk of Court
U.S. Court of Appeals for the Federal Circuit
717 Madison Place, N.W.
Washington, DC 20439

(*via CM/ECF – with filing fee*)

Counsel for Petitioner Instradent USA, Inc.:

FOLEY & LARDNER LLP
Paul S. Hunter
phunter@foley.com
Nicola A. Pisano
npisano@foley.com
Andrew R Cheslock
acheslock@foley.com

(*via email pursuant to 37 C.F.R. § 42.6(e)*)

Dated: June 30, 2017

By: /Michelle E. Armond/
John B. Sganga, Jr. (Reg. 31,302)
Rabinder N. Narula (Reg. No. 53,371)
Sheila N. Swaroop (Reg. No. 53,658)
Michelle E. Armond (Reg. No. 53,954)
Attorneys for Patent Owner
Nobel Biocare Services AG

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ATTACHMENT A

Trials@uspto.gov
571-272-7822

Paper 106
Entered: February 15, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INSTRADENT USA, INC.,
Petitioner

v.

NOBEL BIOCARE SERVICES AG,
Patent Owner.

Case IPR2015-01786
Patent 8,714,977 B2

Before WILLIAM V. SAINDON, TINA E. HULSE, and CHRISTOPHER G. PAULRAJ, *Administrative Patent Judges.*

PAULRAJ, *Administrative Patent Judge.*

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

Instradent USA, Inc. ("Petitioner") filed a Petition (Paper 2, "Pet."), requesting institution of an *inter partes* review of claims 1–7, 9, and 13–20 of U.S. Patent No. 8,714,977 B2 (Ex. 1001, "the '977 Patent"). Nobel Biocare Services AG ("Patent Owner") timely filed a Preliminary Response (Paper 6, "Prelim. Resp."). After Petitioner filed its Petition, Patent Owner filed a statutory disclaimer of claims 9 and 13–18 of the '977 Patent under 35 U.S.C. § 253(a). Ex. 2007. We determined that the information presented in the Petition demonstrated that there was a reasonable likelihood that Petitioner would prevail in challenging claims 1–5, 19, and 20 as unpatentable under 35 U.S.C. § 102(b) or § 103(a). Pursuant to 35 U.S.C. § 314, the Board instituted trial on February 19, 2016, as to those claims of the '977 Patent. Paper 14 ("Institution Decision"; "Inst. Dec.").

Following our institution, Patent Owner filed a Response to the Petition. Paper 39 ("PO Resp."); Paper 40 (confidential version of PO Resp.). Petitioner filed a Reply to Patent Owner's Response. Paper 51 ("Reply"); Paper 54 (confidential version of Reply). Pursuant to our authorization (Paper 57), Patent Owner filed a Sur-Reply limited to addressing certain evidence concerning the public accessibility of the 2003 ABT Catalog (Ex. 1008) alleged to be prior art, in response to which Petitioner filed a Sur-Sur-Reply. Paper 77 ("Sur-Reply"); Paper 81 ("Sur-Sur-Reply"). An oral hearing was held on October 26, 2016. The transcript of the hearing has been entered into the record. Paper 105 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6. This Final Written Decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. Based on the record before us, we conclude that Petitioner has demonstrated

by a preponderance of the evidence that claims 1–5 and 19 of the '977 Patent are unpatentable as anticipated under 35 U.S.C. § 102(b). We further conclude that Petitioner has *not* demonstrated by a preponderance of the evidence the unpatentability of claims 1–5, 19, and 20 as obvious under 35 U.S.C. § 103(a) over different prior art.

A. Related Proceedings

The parties have identified concurrent proceedings, related to the '977 Patent, before the International Trade Commission ("ITC") (*Certain Dental Implants*, Inv. No. 337-TA-934) and in the Central District of California (*Nobel Biocare Services AG and Nobel Biocare USA, LLC, v. Neodent USA, Inc.*, Civil Action No. 14-1322 DOC (DFMx)(C.D. Cal.)), which is stayed pending resolution of the ITC investigation. Pet. 1–2; Prelim. Resp. 1–2, 9–11.

On October 27, 2015, the ITC's Administrative Law Judge ("ALJ") issued an Initial Determination finding claims 1–5 and 19 of the '977 Patent invalid as being anticipated by the 2003 ABT Catalog. Ex. 2001, 60–65. The ITC determined to review in part the ALJ's Initial Determination. Ex. 1029, 3–4. On May 11, 2016, the ITC issued a Commission Opinion in which, *inter alia*, it determined that the Respondents (including Petitioner in this proceeding) failed to show by clear and convincing evidence that the 2003 ABT Catalog is prior art under § 102(b). Ex. 2034, 29–43. The ITC's decision is currently being appealed to the Federal Circuit Court of Appeals. Paper 103, 1. Although we have taken the ITC's decision into account, we are not bound by the ITC's conclusions and fact findings. We have made an independent determination of patentability of the challenged claims based on

the specific evidence before us and the standards applicable to an *inter partes* review.

B. The '977 Patent (Ex. 1001)

The '977 Patent issued on May 6, 2014, and claims priority to a foreign application filed on May 21, 2003. *See* Ex. 1001, Title Page. It names Ophir Fromovich, Yuval Jacoby, Nitzan Bichacho, and Ben-Zion Karmon as the inventors. *Id.*

The '977 Patent relates generally to a dental implant comprising a "coronal" end with inverse tapering, an "apical" end opposite the coronal end, and a tapered "core" region with a variable profile helical thread. *Id.*, Abstract. The '977 explains that the coronal region of the implant is to be placed below the bone level such that bone covers this region. *Id.* at 2:62–66. Additionally, "the most coronal aspect of the coronal end is tapered coronally forming [a] narrower coronal edge." *Id.* at 4:5–7. Furthermore, according to the '977 Patent, "[t]he implant features a tapered profile and a unique external thread profile that offers superior stability when it is implanted in low density bone while insertion is easy." *Id.* at 17:4–7. Specifically, the external thread changes profile from the coronal to the apical ends, "having a sharp, narrow and high profile at the extreme apical end, particularly suited for cutting into non-tapped bone, and having a broad, rounded and low profile at the coronal end, particularly suited for compression of bone tapped by the thread at the apical end." *Id.* at 17:9–15.

One embodiment of the dental implant taught in the '977 Patent is shown in Figure 1, reproduced below:

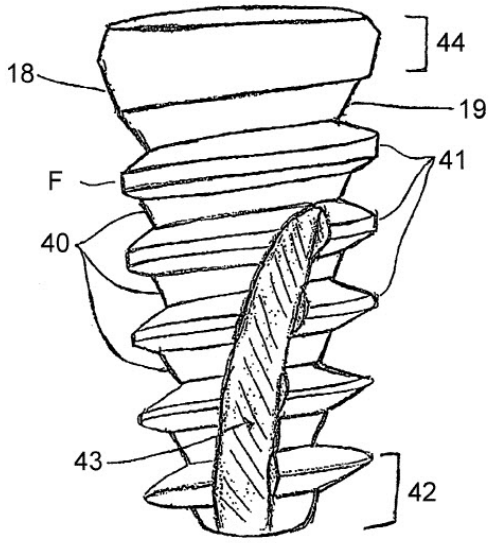

FIG. 1

As depicted in Figure 1, the dental implant includes "the core of the implant 40," "the threads 41," the "most apical region 42 which touches the bone first," "the bone tap 43," and "the most coronal region 44 which engages the cortical bone and . . . sometimes also the gums." Ex. 1001, 7:57–64.

According to the '977 Patent, the combination of these aspects allows for a dental implant that is "easily inserted" with minimal drilling, "to easily dictate the location of the implant, to allow good stabilization in the bone[,] and to allow the bone to be above the intra-bony coronally tapered region." *Id.* at 17:26–31.

C. Illustrative Claim

Claims 1–5, 19, and 20 of the '977 Patent are challenged in this proceeding. Independent claim 1 is illustrative, and reproduced below:

1. A dental implant comprising:

a body;

a coronal region of the body, the coronal region having a frustoconical shape wherein a diameter of an apical end of the coronal region is larger than a diameter of a coronal end of the coronal region;

an apical region of the body, the apical region having a core with a tapered region wherein a diameter of an apical end of the core is smaller than a diameter of a coronal end of the core and the apical end of the core is substantially flat; and

a pair of helical threads extending from the body along at least a portion of the apical region, each of the threads comprising an apical side, a coronal side, and a lateral edge connecting the apical side and the coronal side, a base connecting the threads to the core, a thread height defined between the lateral edge and the base, the lateral edge having a variable width that is expanded along a segment in the direction of the coronal end of the apical region, so that a least width of the lateral edge of the threads is adjacent the apical end of the apical region and a greatest width of the lateral edge of the threads is adjacent the coronal end of the apical region, and the threads having a variable height that is expanded substantially along the segment of the implant in the direction of the apical end of the apical region, so that a least height of the threads is adjacent the coronal end of the apical region and a greatest height at apical end of the apical region; and

a bone tap, wherein the helical threads starts at said bone tap and said substantially flat apical end of the core;

wherein each of the helical threads have a thread step that is defined as a distance along a longitudinal axis of the dental implant covered by a complete rotation of the dental implant, the thread step is between 1.5–2.5 mm.

D. The Asserted Grounds of Unpatentability

The following patentability challenges are at issue in this proceeding:

Reference(s)	**Basis**	**Claims challenged**
ABT Catalog[1]	§ 102(b)	1–5, and 19
Update Journal[2] and Anthogyr Catalog[3]	§ 103(a)	1–5, 19, and 20

II. DISCUSSION

A. Claim Construction

We interpret claims of an unexpired patent using the "broadest reasonable construction in light of the specification of the patent in which [they] appear[]." 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2146 (2016). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art at the time of the invention. *In re Translogic Tech., Inc*., 504 F.3d 1249, 1257 (Fed. Cir. 2007). "Absent claim language carrying a narrow meaning, the PTO should only limit the claim based on the specification . . . when [it] expressly disclaim[s] the broader definition." *In re Bigio*, 381 F.3d 1320, 1325 (Fed Cir. 2004). "Although an inventor is indeed free to define the specific terms used to describe his or her invention, this must be done with reasonable

[1] ALPHA BIO SYSTEM CATALOG (2003) ("ABT Catalog," Ex. 1008).
[2] ISREAL DENTAL UPDATE (2003) ("Update Journal," Ex. 1009).
[3] THE IMPLANTOLOGY SERENELY IMPLANTS ANTHOGYR ("Anthogyr Catalog," Ex. 1014).

clarity, deliberateness, and precision." *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

1. "coronal region having a frustoconical shape" (claim 1).

Independent claim 1 of the '977 Patent recites a "coronal region having a frustoconical shape." Petitioner contends that this limitation should be construed as "the coronal region has, partly or entirely, a frustoconical shape." Pet. 7–16. Petitioner asserts that the term "having" is open-ended, "thereby allowing some portion of the coronal region to have other shapes in addition to a frustoconical shape." *Id.* at 8 (citing *Lampi Corp. v. American Power Products Inc*., 228 F.3d 1365, 1376 (Fed. Cir. 2000)). Pointing to the recitation of "entire threaded region" in claim 9, Petitioner argues that "the patentee knew how to indicate that a whole region had a certain structure." *Id*. at 9–10. Petitioner also points to dependent claim 3, which recites that "the apical end of the coronal region defines an upper limit of the threads." *Id*. at 11. Petitioner also relies upon the embodiments illustrated in Figures 5, 8, and 9 as showing coronal regions that do not have an entirely frustoconical shape. *Id*. at 13.

We preliminarily adopted Petitioner's construction in our Institution Decision. Inst. Dec. 8–10.[4] Patent Owner contends that this construction is unreasonably broad, as it "fails to give meaning to the plain language of Claim 1, which describes the overall frustoconical shape of the coronal region," and "is also at odds with the disclosure and teachings of the ''977

[4] This construction is also consistent with the ITC's construction, which was based on the narrower standard set forth in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (*en banc*). Ex. 2034, 21.

Patent about the function of the coronal region's overall frustoconical shape, which is to permit bone to relapse and increase implant instability." PO Resp. 26–27. Patent Owner contends that a skilled artisan would understand a "coronal region having a frustoconical shape" in the '977 Patent to mean "the coronal region as a whole has a frustoconical shape." *Id.* at 28. Having reviewed the arguments and evidence before us anew, we again adopt Petitioner's proposed construction.

With respect to the claim language, Patent Owner argues that the term "having" in this phrase does not simply mean "including" and is not a transitional term determining whether the claim is open or closed, but rather functions as an adjective to specify the coronal region's shape. *Id.* at 28–32. In other words, according to Patent Owner, the term "having" is used to define the characteristic of the "coronal region" as only that portion of the implant with a frustoconical shape, and no more. *Id.* at 31. Patent Owner further argues that "[w]here . . . a patent claim recites an adjective that specifies a shape, courts examine the claim language to identify the structure that the adjective modifies," and "consistently hold that the claim is not satisfied where only a portion of that structure has the specified shape, but the structure as a whole does not." *Id.* at 29 (citing *Norgren Inc. v. Int'l Trade Comm'n*, 699 F.3d 1317, 1323 (Fed. Cir. 2012); *Schoell v. Regal Marine Indus., Inc.*, 247 F.3d 1202, 1209 (Fed. Cir. 2001); *Cacace v. Meyer Mktg.*, 812 F. Supp. 2d 547, 554 (S.D.N.Y. 2011)). Patent Owner also relies upon a dictionary definition to assert that "'[h]aving', which is the transitive form of the verb 'to have,' also means '[t]o possess as a characteristic.'" PO Resp. 31 (citing Ex. 2068 (Am. Heritage Dict.), 804).

We do not find any of the cases cited by Patent Owner to be apposite. In *Norgre*n, the issue was whether the terms "generally rectangular ported flange" and "four-sided, generally rectangular clamp" required the flange and corresponding clamp as a whole, and not merely portions thereof, to be four-sided and generally rectangular. *Norgren*, 699 F.3d at 1323. In *Schoell*, the issue was whether a claim limitation reciting "the forward hull including . . . a V-shaped keel extending from the bow to the stepped offset" required the entire forward keel to be V-shaped. 247 F.3d at 1208–09. Neither of these Federal Circuit decisions addressed a limitation in which a component or region was described as "having" a particular shape, as recited in claim 1 of the '977 Patent. In *Cacace*, a district court decision to which we are not bound, the focus was on whether the term "curvilinear profile" should be interpreted to "include flat, uncurved regions, or whether it must be curved along the entirety of its length." 812 F. Supp. 2d at 554–56. The court did not address the issue of whether the term "having" recited in the claim allowed for additional shapes beyond a curvilinear profile.

We also do not find that the plain and ordinary meaning of "having" in this claim limitation would be understood to define the coronal region as *only* the portion with a frustoconical shape. Contrary to Patent Owner's arguments, the term "having" is generally considered a transitional phrase even when it is not used to separate the preamble from the body of the claim, and it may be treated as open or closed depending on its context in the claim and specification. *See, e.g.*, *Lampi Corp.*, 228 F.3d at 1376 (interpreting the phrase "housing having two half-shells" in the body of the claim as open-ended, thus allowing for additional components in the housing); *see also Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l Inc.*, 246

F.3d 1336, 1348 (Fed. Cir. 2001) (noting that "the term 'having' does not convey the open-ended meaning as strongly as 'comprising,'" and "does not create a presumption that the body of the claim is open"); Manual of Patent Examining Procedure § 2111.03 ("Transitional phrases such as 'having' must be interpreted in light of the specification to determine whether open or closed language is intended."). Notwithstanding, the claim drafter specifically chose not to use the conventional phrase for limiting the openness of a claim—"consisting of"; nor did the drafter use the desired shape as an adjective to the structure, *e.g.*, "a frustoconical coronal region." In the context of this claim, there is nothing that physically or logically prevents the coronal region from "having" a portion that is frustoconical in shape and a portion that is not. We next consider whether this broader interpretation is consistent with the rest of the specification.

Patent Owner argues that the specification demonstrates that claim 1 is not directed to "small bevels." PO Resp. 33–34. In particular, Patent Owner argues that "[t]he '977 Patent describes the implant's innovative frustoconical coronal taper as a feature that, along with other features, provides high primary stability and excellent soft-tissue support" because it "allows the bone, which is first compressed during insertion, to spring back or relapse over the top of the implant." *Id.* at 33 (citing Ex. 1001, 2:62–66, 5:66–6:4, 12:51–57; Ex. 2035[5] ¶ 42). Patent Owner draws a contrast to the "small edge breaks or tiny abutment mating bevels" used commonly in conventional implant designs. *Id.* (citing Ex. 2035 ¶¶ 64–67). Patent Owner argues that under Petitioner's and the Board's preliminary construction,

[5] Declaration of Steven M. Hurson in Support of Patent Owner's Response (Ex. 2035).

"conventional implants including cylindrically-shaped coronal regions with tiny bevels and edge breaks would unreasonably satisfy Claim 1," and thus "the innovation of the 'coronal region having a frustoconical shape' would essentially be eliminated from Claim 1." *Id.* We are unpersuaded by these arguments.

First, Patent Owner has not proposed a construction that requires the frustoconical coronal region to "provide[] high primary stability and excellent soft-tissue support" or to allow bone relapse, and we do not find the specification to suggest that those goals must necessarily be satisfied by the coronal region of all the claimed dental implants. *See E-Pass Techs., Inc. v. 3Com Corp.*, 343 F.3d 1364, 1370 (Fed. Cir. 2003) (stating that claim language should not be limited "to exclude particular devices because they do not serve a perceived 'purpose' of the invention. . . . An invention may possess a number of advantages or purposes, and there is no requirement that every claim directed to that invention be limited to encompass all of them."). Second, even if those goals were taken into consideration, Patent Owner has not explained what would be considered "small" or "tiny" edge breaks/abutment mating bevels that would *not* satisfy those functional requirements. We disagree with Patent Owner's argument to the extent that it implies that Petitioner's construction permits *any* inconsequential variations in edge sharpness to be a "frustoconical region." Patent Owner points out that "the '977 Patent specifies that the axial height of the tapered coronal region should preferably be 1–3mm." PO Resp. 34 (citing Ex. 1001, 12:12–16). However, the specification more broadly states, with respect to the preferred embodiment of Fig. 12, that "[t]he height of the coronally tapered region **85** is 0.5–4 mm" (Ex. 1001, 12:12–13), and there is no basis

to conclude that edge breaks or abutment mating bevels would not fall within this height range. To the contrary, the lower end of the height range (0.5 mm) disclosed in the specification for the coronal region appears to be consistent with Mr. Hurson's testimony in the related ITC proceeding that such features "are very small, on the order of 10ths or even hundredths of a millimeter in axial height." Ex. 1087, 167:5–12.

Patent Owner additionally argues that the '977 Patent figures support its construction. PO Resp. 35–36. We disagree. As we noted in our Institution Decision, at least some of the embodiments depicted in the figures of the '977 Patent have a coronal region that is not entirely frustoconical. *See* Ex. 1001, Figs. 8 and 9; Inst. Dec. 10. Patent Owner acknowledges that "Figures 8 and 9 depict implants with differently shaped coronal regions," but asserts that these embodiments are not covered by claim 1. PO Resp. 36 (citing Ex. 2035 ¶ 69). Instead, Patent Owner contends that "the implants with partly frustoconical regions are covered by the properties of the coronal end of Claim 19, which recites that a most coronal aspect of the coronal end is tapered." *Id.* However, other than the conclusory testimony of Mr. Hurson, Patent Owner offers no explanation as to why the embodiments of Figures 8 and 9 are covered by claim 19, but not claim 1. Indeed, the fact that dependent claims 19 and 20, [6] and other

[6] We construe dependent claims 19 and 20 as incorporating the limitations of disclaimed claim 9. *See* 35 U.S.C. § 112(d) ("[A] claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers."); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,764–65 (Aug. 14, 2012) ("Where one or more challenged claims remain [after a statutory disclaimer], the Board's decision on institution would be based solely on the remaining claims.") (citing *Sony Comput. Entm't Am. Inc. v. Dudas*, 2006 WL 1472462 (E.D.Va. 2006)).

portions of the specification, recite that "a most coronal aspect of the coronal end is tapered coronally" is fully consistent with and further supports Petitioner's and the Board's preliminary construction. *See, e.g.*, Ex. 1001, 4:5–7. If the specification discloses that only the "most coronal" portion needs to be tapered, this implies that the coronal region is not necessarily defined by having only a frustoconical shape. Thus, we find it is reasonable to interpret claim 1 such that it covers the embodiments of Figures 8 and 9.

Accordingly, we determine that a "coronal region having a frustoconical shape" should be construed as "the coronal region has, partly or entirely, a frustoconical shape," as proposed by Petitioner and consistent with the ITC's construction under *Phillips*.

2. Remaining Claim Terms

We determine that no explicit construction of any other claim term is necessary for our resolution of the issues in this case. *See, e.g.*, *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) ("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.") (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

B. Anticipation of Claims 1–5 and 19 by the ABT Catalog (Ex. 1008)

1. Whether New Arguments and Evidence Regarding the ABT Catalog in Petitioner's Reply Are Improper

The Alpha Bio Tech Ltd. ("ABT") Catalog is a product catalog describing, *inter alia*, "SPI" dental implants that Petitioner alleges anticipates most of the challenged claims. Ex. 1008, 15–16; Pet. 19. The ABT Catalog is entitled "Product Catalog March 2003," and includes a 2003 copyright designation. Ex. 1008, 1, 57. Notwithstanding the March 2003

date on the cover page, Patent Owner has argued that Petitioner has not met its burden of establishing that the 2003 ABT Catalog is a prior art printed publication. Prelim. Resp. 15–23; PO Resp. 12–22.

In its Petition, Petitioner relied on the deposition testimony of Dr. Ophir Fromovich, one of the co-inventors of the '977 Patent, from the related ITC proceeding to assert that copies of the ABT Catalog were printed and handed out as a "training aid" during courses given to other dentists who were potential customers. Pet. 19–20 (citing Ex. 1021, 123:20–124:5, 124:22–127:2, 131:23–134:18). As further evidence, Petitioner submitted that the ABT advertisement in the Jan.–Feb. 2003 Update Journal (Ex. 1009) includes a picture and description of the SPI Implants identical to those described in the ABT Catalog. Pet. 20 (citing Ex. 1008, 16). Further, Petitioner argued that an Information Disclosure Statement (IDS) submitted during prosecution indicating that the ABT Catalog should be "consider[ed] published before May 21, 2003" constitutes an admission by the Patent Owner that the catalog is, in fact, prior art. *Id.* at 21 (citing Ex. 1002, 196). Petitioner further pointed out that the ITC's Office of Unfair Import Investigations ("Staff") found that the ABT Catalog qualified as prior art based on the higher clear and convincing evidentiary standard applicable to ITC proceedings. *Id.* at 20–21 (citing Ex. 1005, 45).[7]

[7] After the Petition was filed, but before our Institution Decision, the ITC's ALJ issued an Initial Determination, in which he found that the ABT Catalog was publicly accessible. Ex. 2001, 61–63. After our Institution Decision, the ITC reviewed the ALJ's Initial Determination and concluded that the Respondents in that proceeding failed to show by clear and convincing evidence that the ABT Catalog qualifies as a "printed publication" prior art reference. Ex. 2034, 29–43. The parties have submitted several exhibits and testimony from the ITC investigation that are

In our Institution Decision, we concluded that Petitioner made the requisite "threshold" showing of public accessibility for the ABT Catalog for purposes of considering the reference as prior art in this *inter partes* review. Inst. Dec. 16–17. We recognized, however, that "the evidence relied upon by Petitioner has some inconsistencies that require addressing during trial." *Id.* Following institution, we granted Petitioner authorization to seek certain limited additional discovery regarding the public accessibility of the ABT Catalog from Patent Owner.[8] Paper 38. In response to the authorized document production requests, Patent Owner represented that a search pursuant to our discovery order did not result in any documents responsive to the requests. Paper 44, 2. In view of that representation, we denied Petitioner's requests to seek further discovery from Patent Owner on this issue. Paper 44, 3; Paper 48, 2–4.

Thereafter, Petitioner independently obtained and submitted with its Reply two third-party witness declarations, along with additional related exhibits, to purportedly show that the ABT Catalog was distributed during the International Dental Show (IDS) trade show held in Cologne, Germany in March 2003. Reply 3–11; Exs. 1073–1080. As further corroborating evidence, Petitioner submitted a copy of the ABT website, obtained from the Internet Archive and dated April 8, 2003, indicating that there was a

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now part of the record in this proceeding. As noted above, however, we are not bound by the ITC's fact findings or conclusions, and make our own independent determination based on the record in this *inter partes* review. Our proceedings have a different standard of review from the ITC, and we currently have more evidence on this issue than what was before the ITC.

[8] Patent Owner acquired ABT in 2008, and there were already certain ABT documents produced by Patent Owner during the ITC investigation. *See* Paper 25, 4–5; Ex. 1033.

"Catalog Online" prior to the critical date. Ex. 1037; Ex. 1081. Petitioner also submitted certain emails from co-inventor Ben-Zion Karmon concerning the ABT Catalog. Ex. 1089; Ex. 1090.

We denied Patent Owner's request to strike this Reply evidence, but granted Patent Owner the opportunity to file a Sur-Reply to address the evidence and further provided Patent Owner the opportunity to depose the third party witnesses, Messrs. Hantman and Chakir. Paper 57, 5–6; Paper 61, 5–6; Paper 77. Petitioner was provided an opportunity to file a Sur-Sur-Reply to address the arguments in Patent Owner's Sur-Reply. Paper 57, 7; Paper 81. Additionally, Patent Owner was authorized to identify any allegedly improper new arguments and evidence in Petitioner's Reply in a separate paper, and Petitioner was authorized to respond to that paper. Paper 57, 6; Paper 59; Paper 63.

We determine that Petitioner's Reply does not present improper new arguments and evidence concerning whether the ABT Catalog qualifies as a prior art printed publication. Throughout this proceeding, Petitioner has maintained the position that the ABT Catalog was publicly accessible prior to the May 2003 critical date, and thus anticipates challenged claims 1–5 and 19 under 35 U.S.C. § 102(b). Although Petitioner identified certain evidence in its Petition (e.g., the testimony of Dr. Fromovich) that we recognized had some inconsistencies, Petitioner was not precluded from presenting further corroborating evidence consistent with its overall theory that the ABT catalog was publicly accessible before the critical date. Because Patent Owner contested the sufficiency of the evidence submitted with the Petition in its Patent Owner Response, Petitioner was properly allowed to respond to those arguments in its Reply. *See* 37 C.F.R. §

42.23(b) ("A reply may only respond to arguments raised in the corresponding opposition, patent owner preliminary response, or patent owner response."). Moreover, as recognized by the Federal Circuit, "the introduction of new evidence in the course of the trial is to be expected in *inter partes* review trial proceedings and, as long as the opposing party is given notice of the evidence and an opportunity to respond to it, the introduction of such evidence is perfectly permissible under the APA." *Genzyme Therapeutic Products Ltd. P'ship v. Biomarin Pharm. Inc.*, 825 F.3d 1360, 1366 (Fed. Cir. 2016); *cf. In re NuVasive, Inc.*, 841 F.3d 966, 973 (Fed. Cir. 2016) (finding APA violation where "the Board refused to permit [patent owner] to file a surreply or even to address the matter during oral argument").

Here, Patent Owner was provided an opportunity to substantively respond to Petitioner's new Reply evidence in its Sur-Reply. Paper 57, 7. Patent Owner took advantage of that opportunity. Paper 77. Patent Owner also filed a Motion for Observations of the cross-examination testimony of Petitioner's Reply Declarants. Paper 76. Patent Owner also extensively addressed this evidence during oral argument. *See, e.g.*, Tr. 75:14–83:6. Accordingly, we determine that the evidence submitted with Petitioner's Reply to support its assertions regarding public accessibility of the ABT Catalog is not improper and may be considered.

2. Whether the ABT Catalog Qualifies as a "Printed Publication"

To qualify as a "printed publication" within the meaning of § 102(b), a reference "must have been sufficiently accessible to the public interested in the art" before the critical date. *In re Cronyn*, 890 F.2d 1158, 1160 (Fed. Cir. 1989). Whether a reference is publicly accessible is determined on a

case-by-case basis based on the "facts and circumstances surrounding the reference's disclosure to members of the public." *In re Lister*, 583 F.3d 1307, 1311 (Fed. Cir. 2009) (quoting *In re Klopfenstein*, 380 F.3d 1345, 1350 (Fed. Cir. 2004)). "A reference is considered publicly accessible if it was 'disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art[,] exercising reasonable diligence, can locate it.'" *Id.* (quoting *Kyocera Wireless Corp. v. Int'l Trade Comm'n*, 545 F.3d 1340, 1350 (Fed. Cir. 2008)). Documents that are presented or distributed during an industry conference or meeting can constitute a printed publication. *See Klopfenstein*, 380 F.3d at 1348–52 (determining that a printed slide presentation displayed for approximately three continuous days during scientific conference constituted a printed publication); *Massachusetts Inst. of Tech. v. AB Fortia*, 774 F.2d 1104, 1109 (Fed. Cir. 1985) ("*MIT*") (determining that a paper delivered orally during a scientific conference was considered a printed publication where "between 50 and 500 persons interested and of ordinary skill in the subject matter were actually told of the existence of the paper and informed of its contents by the oral presentation, and the document itself was actually disseminated without restriction to at least six persons"). Relevant factors to consider are: "the length of time the display was exhibited, the expertise of the target audience, the existence (or lack thereof) of reasonable expectations that the material displayed would not be copied, and the simplicity or ease with which the material displayed could have been copied." *Klopfenstein*, 380 F.3d at 1350.

As discussed above, Petitioner relies upon several pieces of supporting evidence to allege that the ABT Catalog qualifies as a prior art printed publication. We consider the evidence as a whole, including what

was presented with both the Petition and the Reply, in assessing whether the ABT Catalog was publicly accessible prior to the May 2003 critical date.

We first consider the fact that the cover page of the ABT Catalog indicates a March 2003 date. Ex. 1008, 1. Product catalogs are the types of documents normally intended for public dissemination. Moreover, there is nothing in the document itself indicating that Exhibit 1008 was merely a draft or that it was intended to be kept confidential. We recognize, however, that a date printed on a document may not, in itself, be sufficient to establish public accessibility. *See Hilgraeve, Inc. v. Symantec Corp.*, 271 F. Supp. 2d 964, 976 (E.D. Mich. 2003) ("mere citation to the date imprinted on a document, without more, is insufficient to establish that a product was known or used by others on that date"); *but see Canron, Inc. v. Plasser Am. Corp.*, 474 F. Supp. 1010, 1016 (E.D. Va. 1978), *aff'd*, 609 F.2d 1075 (4th Cir. 1979) ("The Court presumes the date a document bears to be the date of its publication, unless proof by extrinsic evidence is offered that the date of publication is other than the date the document bears.").

We, therefore, look to the other evidence of record to determine whether the ABT Catalog was publicly accessible prior to the May 2003 critical date. In this regard, we find that Dr. Fromovich's testimony suggests that the ABT catalog was distributed, or at least made accessible, to potential customers around that time.[9] In particular, Dr. Fromovich testified that it is possible that between 200 and 500 copies of the catalog were printed "in the beginning." Ex. 1021, 125:23–126:2, 126:23–127:2. Dr. Fromovich further testified that such catalogs were normally distributed as a teaching aid ("a

[9] Dr. Fromovich was CEO of ABT until 2008, when it was acquired by Patent Owner. Ex. 1085, 372:24–373:6.

learning book") at courses that he held for other dentists around the time. *Id.* at 133:14–134:18. The attendees of these training courses were not under any confidentiality obligation. Ex. 1085, 137:6–23. Although Dr. Fromovich did not recall during his deposition exactly when the ABT Catalog was printed or when he held courses in which it was used as a teaching aid, he also did not conclusively testify that those events took place only after the critical date.

More importantly, as relevant to the other evidence discussed below, Dr. Fromovich testified that he attended the IDS Conference in Germany every year between 2000 and 2008, including the conference held between March 25–29, 2003 (the "March 2003 IDS Conference"), and that ABT operated a small booth at that conference. Ex. 1021, 134:23–136:21; Ex. 1085, 404:4–405:5. According to Dr. Fromovich, "a lot" of people (possibly a thousand) would attend the IDS Conference, as it was "one of the biggest for distribution in Europe," and ABT attended the conference in order to look for distributors. Ex. 1085, 396:15–21, 406:15. Indeed, when asked why the ABT Catalog had a March 2003 date on its cover, Dr. Fromovich identified the March 2003 IDS Conference as the reason. *Id.* at 396:8–16. [10]

We additionally find that the declarations of Yechiam Hantman and Zvi Chakir, and their cross-examination testimony, corroborates that the ABT catalog was accessible without restriction to others before the May

[10] Although Dr. Fromovich testified that that he could not specifically recall bringing a copy of the ABT Catalog to the March 2003 IDS Conference (Ex. 1085, 404:9–15), we find his failure to recall this and several other critical details unfavorable to Patent Owner's position to lack credibility, especially in view of the additional evidence developed during the course of this proceeding.

2003 critical date. In March 2003, Messrs. Hantman and Chakir were co-owners of Chakir Implants, Ltd., a dental implant distributor for Patent Owner. Ex. 1073 ("Hantman Decl.") ¶ 2; Ex. 1080 ("Chakir Decl.") ¶¶ 2–3.

In his declaration, Mr. Hantman attests that in late 2002 or early 2003, he was notified by customers about ABT's SPI implant and it was a specific goal of his to collect materials from the March 2003 IDS Conference describing the SPI implant. Ex. 1073 ¶¶ 6–7. However, because he could not attend the conference himself that year, he asked Mr. Chakir to attend and collect any such materials. *Id.* ¶ 8. According to Mr. Hantman, Mr. Chakir returned with a copy of the ABT Catalog, and this copy has been in Mr. Hantman's possession since that time. *Id.* ¶ 9. Ex. 1074 is an excerpt of Mr. Hantman's copy of the ABT Catalog and, with the exception of certain handwritten markings on the front cover, appears to have identical pages to Ex. 1008 alleged to be prior art in this proceeding.[11] Mr. Hantman explains that the handwriting was made by another individual and is unrelated to ABT or the SPI implant, but confirms his recollection that the ABT Catalog had been in his archive. *Id.*

In his own declaration, Mr. Chakir attests that he "attended the 2003 IDS show," that he "collected catalogs and other materials from competitors, and especially the booths of Israeli companies, including Alpha Bio Ltd., and that he "gave the materials relating to dental implants to Mr. Hantman upon [his] return." Ex. 1080 ¶ 5. Mr. Chakir also states that he reviewed Mr. Hantman's Declaration, "who confirms that Exhibit A to his Declaration

[11] The complete original version of the ABT Catalog that was in Mr. Hantman's possession was introduced and discussed during his deposition. Ex. 2072; Ex. 2074, 221:17–222:22.

[Ex. 1074] is a photograph of the cover of the March 2003 Alpha Bio Ltd. catalog that [he] brought back from the 2003 IDS show." *Id.* ¶ 6.

In its Sur-Reply, Patent Owner attacks the credibility of Messrs. Hantman and Chakir in several ways. First, with respect to Mr. Chakir, Patent Owner contends that his declaration and cross-examination testimony shows that he could not specifically recall obtaining the ABT Catalog at the March 2003 IDS Conference. Paper 77, 1–2 (citing Ex. 2073 (Chakir Depo. Tr.), 133:20–134:4, 234:22–235:3, 243:5–9, 15–17). While we recognize that Mr. Chakir's memory is not perfect in this regard, his basic testimony that he attended the March 2003 IDS Conference, collected materials regarding dental implants, and provided them to Mr. Hantman upon his return stands unrefuted. Ex. 1080 ¶ 5. Second, with respect to Mr. Hantman, Patent Owner argues that he is not competent to testify about the 2003 IDS because he personally did not attend the event. Paper 77, 2. However, the focus of Mr. Hantman's testimony is not about what happened at the March 2003 IDS Conference so much as what happened upon Mr. Chakir's return from that conference, which is that he received the copy of the ABT Catalog. Patent Owner also suggests that the ABT Catalog could have been obtained after the critical date at another conference, but we find no basis for such speculation. Paper 76 ¶¶ 19–22. To the contrary, Mr. Hantman testified that the handwriting on the cover page of his copy of the ABT Catalog was made during a meeting held shortly after the March 2003 IDS Conference (within a few weeks), thus substantiating his recollection that the Catalog in his possession was the same one he obtained from Mr. Chakir. Ex. 2074, 234:14–237:18.

Patent Owner's assertion that Mr. Hantman's testimony is biased or somehow fabricated merely because he is employed by a competitor that may have an interest in invalidating the '977 Patent is unfounded. *See* Paper 76 ¶30. When considered together with Mr. Chakir's testimony, we find no reason to question Mr. Hantman's testimony that the ABT Catalog in his possession was obtained at the March 2003 IDS Conference. Furthermore, contrary to Patent Owner's arguments regarding lack of corroboration (Paper 77, 2–4), we find the testimony of Messrs. Hantman and Chakir not only to be corroborated by each other, but also by a) the actual copy of the ABT Catalog submitted as evidence (Ex. 1074; Ex. 2072) and b) Dr. Fromovich's testimony that ABT operated a booth at the March 2003 IDS conference (Ex. 1021, 134:23–136:21).

Petitioner also relies upon a printout of ABT's website from the Internet Archive's "Wayback Machine" to show public accessibility of the ABT Catalog. Reply 6–7; 1037; 1081 ¶¶ 4–5. Although the printout states there was a "Catalog Online," it is unclear what specific catalog was accessible on ABT's website prior to the May 2003 critical date. Patent Owner argues that "ABT had many catalogs over the years, . . . and ABT's webpage said 'Catalog Online' since at least 2002." Paper 77, 4 (citing Ex. 1078[12]; Ex. 2076). Nonetheless, we take into account the fact that Patent Owner produced *no* documents in response to our authorized Request for Production No. 1, which requested "[a] full copy of all catalogs available from the Alpha Bio Tec website, as mentioned in the screenshot of Ex. 1037 that states 'Catalog Online,' between February 1, 2003, and May 23, 2003."

[12] Ex. 1078 is Exhibit E to the Hantman Declaration (Ex. 1073).

Paper 38, 9; Paper 48, 4. As such, the *only* catalog of record from around that time period is the March 2003 ABT Catalog alleged to be prior art.

When the totality of the evidence is assessed,[13] we find that the ABT Catalog was made available, without restriction, to members of the interested public at least during the March 2003 IDS Conference. This is similar to the circumstances considered in *Klopfenstein* and *MIT*, where the court found that materials distributed or presented during an industry conference constituted a printed publication. *Klopfenstein*, 380 F.3d at 1348–52; *MIT*, 774 F.2d at 1109. Here, although there is no evidence that an actual presentation was made, the evidence tends to show that any interested conference attendee could have obtained a copy of the ABT Catalog from the ABT booth during the March 2003 IDS Conference. Moreover, while only one individual (Mr. Chakir) was shown to have actually obtained a copy of the ABT Catalog, we note that "actual retrieval of a publication is not a requirement for public accessibility." *SRI Int'l, Inc. v. Internet Sec. Sys., Inc.*, 511 F.3d 1186, 1197 (Fed. Cir. 2008); *see also Constant v. Advanced Micro–Devices, Inc.*, 848 F.2d 1560, 1569 (Fed. Cir. 1988) ("Accessibility goes to the issue of whether interested members of the relevant public could obtain the information if they wanted to. If

[13] We have considered the other evidence relied upon by Petitioner, but find that it has less probative value for our assessment of public accessibility. *See* Ex. 1002, 196 (Information Disclosure Statement filed during prosecution identifying ABT Catalog); Ex. 1009 (ABT advertisement in Israeli Update Journal); Exs. 1089 and 1090 (emails from co-inventor Dr. Karmon to Patent Owner's counsel).

accessibility is proved, there is no requirement to show that particular members of the public actually received the information.").

Accordingly, we determine that a preponderance of the evidence establishes that the ABT Catalog qualifies as a prior art printed publication under 35 U.S.C. § 102(b).

3. Whether the ABT Catalog Anticipates Claims 1–5 and 19

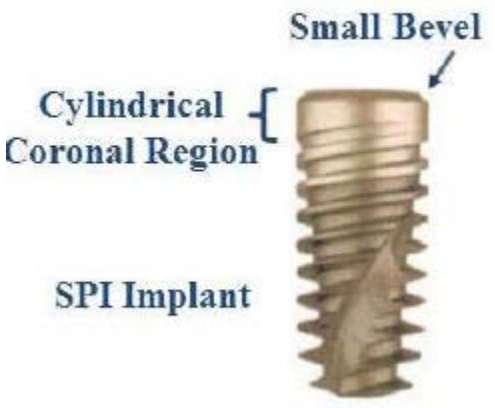
Having found that the ABT Catalog qualifies as a printed publication, we next turn to the question of whether it teaches all the limitations of, and thus anticipates, challenged claims 1–5 and 19. Petitioner contends that the ABT Catalog's disclosure of an SPI implant having an external diameter of 5 mm satisfies the claim requirements. Pet. 19–35. Petitioner provides annotated claim charts for each of the challenged claims. *Id.* at 24–35. In addition to the teachings of the references, Petitioner also relies upon the Declaration and Supplemental Declaration of Michael M. Dard, DDS, MS, Ph.D in support of this challenge. Ex. 1007; Ex. 1082.

In our Institution Decision, we determined that Petitioner demonstrated a reasonable likelihood of prevailing with respect to this anticipation challenge. Inst. Dec. 22–23. We have revisited the analysis set forth in our Institution Decision and considered the question of patentability anew in view of all the evidence and arguments presented in this proceeding. Based on the record developed during this proceeding, we determine that Petitioner has shown by a preponderance of the evidence that the ABT Catalog anticipates claims 1–5 and 19. We adopt the reasoning set forth in the Petition and our Institution Decision. Pet. 19–35; Inst. Dec. 22–23. We have considered, but are unpersuaded by Patent Owner's arguments to the contrary regarding the merits of this challenge. Patent Owner argues that the

ABT Catalog fails to disclose two claim limitations: (1) "the coronal region having a frustoconical shape" (claim 1); and (2) "a surface configured to be in contact with bone" (claim 2). PO Resp. 42–43, 45–46. We address the parties' arguments with respect these limitations below.

a. Whether the ABT Catalog Teaches that the SPI Implant Has a Coronal Region Having a Frustoconical Shape (Claim 1)

First, Patent Owner argues that the 5 mm SPI implant disclosed in the ABT Catalog is "not an implant whose coronal region as a whole has a frustoconical shape," as shown in the following annotated image:



PO Resp. 39 (citing Ex. 1008, 15). The figure above shows the 5 mm SPI implant with Patent Owner's annotations pointing to a "small bevel" and a "cylindrical coronal region." *Id.* Patent Owner argues that "[e]ven accounting for the small bevel, the coronal region as a whole would not have an overall frustoconical shape, but an overall cylindrical shape," which does not anticipate claim 1 or dependent claims 2–5. *Id.* As discussed above, our construction of claim 1 encompasses a coronal region that only partly has a frustoconical shape. Petitioner has identified the topmost portion of the 5 mm SPI implant shown in the ABT Catalog as the coronal region with the frustoconical shape. Pet. 25.

Second, even under our claim construction, Patent Owner argues that the 5 mm SPI implant shown in the ABT Catalog also does not satisfy the requirement of a coronal region with a partly frustoconical shape. PO Resp. 42–43. Patent Owner contends that the small mating level at the topmost portion of the SPI implant "is not part of the coronal region, but instead part of the prosthetic platform." *Id.* at 42 (citing Ex. 2035 ¶ 84). Patent Owner further contends that "[t]he coronal region is a portion of the implant above the threads that is designed to contact bone," whereas "the bevel is designed to mate with an optional wide-platform abutment" and has a smooth surface that "is not intended or capable of contacting bone." *Id.* at 42–43 (citing Ex. 2035 ¶¶ 42, 44, 66–67, 84–88).

We are unpersuaded by this argument. As discussed above, we do not construe "coronal region" to exclude mating bevels. Nor do we construe the claims to impose a functional requirement that the coronal region must allow for bone to relapse. Furthermore, the "wide platform" abutment that the bevel is designed to mate with is only one option for the 5 mm SPI implant. The ABT Catalog indicates that a "normal platform" abutment may be used instead, as shown in the image below:

Ex. 1008, 29. The above image shows both the normal and wide platform abutment options for the SPI implant. The ABT Catalog states that "[i]t is

possible to use the normal platform on all implants incl[u]ding the [0.5] or [0.6]mmd implants." *Id.* Petitioner's expert Dr. Dard explains that "the SPI implant would be placed into the jaw bone such that the bevel or frustoconical coronal region of the SPI implant is positioned just below the jaw bone surface." Ex. 1082 ¶ 25. Dr. Dard further states that "[w]hen a normal platform abutment is affixed to the SPI implant, as shown on the left side of the figure above, it is my opinion that bone will grow over the exposed bevel or frustoconical coronal region, as clearly indicated by the image above." *Id.* ¶ 26.

We find that Mr. Hurson's declaration and testimony does not contradict Dr. Dard's testimony regarding the use of the normal platform abutment. Ex. 2035 ¶¶ 84–88, 92–93. In particular, Mr. Hurson states that "[b]ecause it was designed to mate with a wide-platform abutment, the bevel in the ABT Catalog implant necessarily included a smooth surface for proper abutment mating." *Id.* ¶ 85. However, the fact that the SPI implant could also be used with a wide platform abutment does not suggest that its bevel must necessarily have a smooth surface that would not allow for bone growth. Accordingly, we credit the testimony of Dr. Dard on this point, and find that bone will grow over the exposed bevel of the SPI implant when a normal platform abutment is used.

We, therefore, find that the SPI implant taught by the ABT Catalog includes a coronal region having a frustoconical shape as required by the challenged claims.

b. Whether the ABT Catalog Teaches that the Coronal Region of the SPI Implant Has a Surface Configured to Be in Contact with Bone (Claim 2)

Dependent claim 2 recites that "the coronal region has a surface configured to be in contact with bone." Patent Owner asserts that, in the ITC proceeding, the parties agreed that this limitation should be construed as "designed or constructed to enhance osseointegration." PO Resp. 37 (citing Ex. 2038, 32). As support, Patent Owner points to the '977 patent's disclosure that the implant "preferably can have rough surface like TiUnite, S.L.A., Osseotite, [and] Hydroxyapatite." *Id.* at 38 (citing Ex. 1001, 16:60–67). Petitioner has not proposed a construction for this limitation. We need not construe this limitation because, even assuming *arguendo* Patent Owner's proposed construction, we find that Petitioner has shown that the SPI implant taught by the ABT Catalog satisfies the claim requirement.

With respect to claim 2, Patent Owner argues that "the smooth bevel of the ABT Catalog implant is not configured to be in contact with bone, because any bone that might contact it would simply recede." PO Resp. 45 (citing Ex. 2035 ¶ 90). As noted in the Petition, the ABT Catalog includes the following notation concerning the SPI implants: "Implant surface: 'Hybrid' design 2/3 apically S.L.A. (macro) 20-40μ + (micro) 2μ, *1/3 coronary [sic] Acid Etched 5-10μ.* Increases clot retention and is conducive to bone healing." Pet. 32 (emphasis added); Ex. 1008, 15. There is no dispute that the acid etching taught by the ABT Catalog would result in a "surface configured to be in contact with bone." Rather, Patent Owner argues that "[t]here is no teaching that any acid etching on this implant was applied to the mating surface of the bevel." PO Resp. 38 (citing Ex. 2035 ¶¶ 91–92). Under our claim construction, however, the coronal region is not

limited to only the bevel portion of the SPI implant. Regardless, even if it were, the testimony of Dr. Dard discussed above shows that bone will grow over the exposed bevel of the SPI implant when the normal platform abutment is used, thus rendering it a surface configured to be in contact with bone. Ex. 1082 ¶¶ 25–26.

We, therefore, find that the SPI implant taught by the ABT Catalog includes a coronal region that has a surface configured to be in contact with bone, as required by dependent claim 2.

c. Remaining Claims

Patent Owner has not presented any separate arguments for challenged claims 3–5 and 19. *See* PO Resp. 38–46. Based on the arguments and evidence presented, we find Petitioners' evidence that the ABT Catalog teaches the limitations recited in these claims to be persuasive, and adopt Petitioners' reasoning. *See* Pet. 24–35.

Accordingly, we conclude that Petitioner has demonstrated by a preponderance of the evidence that claims 1–5 and 19 are anticipated by the ABT Catalog.

C. Obviousness of Claims 1–5, 19, and 20 Based on the Update Journal (Ex. 1009) and the Anthogyr Catalog (Ex. 1014)

Petitioner contends that claims 1–5, 19, and 20 are obvious based on the combination of the Update Journal and the Anthogyr Catalog. Pet. 36–53. In addition to the teachings of the references, Petitioner also relies upon the Declaration of Dr. Dard in support of this challenge. Ex. 1007. Petitioner provides claim charts for each of the challenged claims. Pet. 40–43, 48–50.

Before turning to the merits of this challenge, we must address whether the Anthogyr Catalog qualifies as a printed publication. The Anthogyr Catalog includes a "January 2002" notation on its last page. Ex. 1014, 40. To establish the public accessibility of the Anthogyr Catalog, Petitioner submitted a Declaration of Mr. Martin Vogt, an employee of Institute Straumann AG, which is a real-party-in-interest of Petitioner in this proceeding. Ex. 1015; Pet. 1. Mr. Vogt attests that, during his tenure at Institut Straumann since 1992, he and his colleagues "collected product literature, including manuals and marketing brochures, for Institut Straumann as well as competitors' products." *Id.* ¶ 3. Mr. Vogt further attests that he "recognize[s] [Exhibit 1014] as the 2002 Anthogyr Catalog," and that "[c]atalogs, including that shown in Exhibit 1014, are kept in an archive maintained by Institut Straumann at least since 2000." *Id.* ¶¶ 4–5.

In our Institution Decision, we determined that Petitioner made a sufficient "threshold" showing that the Anthogyr Catalog qualifies as prior art for purposes of considering the reference as prior art in this *inter partes* review. Inst. Dec. 18–20. We recognized, however, "that the Declaration of Mr. Vogt can be construed as vague as to exactly when employees of Institut Straumann received and archived the Anthogyr Catalog," and invited the parties to further develop the evidentiary record on this issue. *Id.* at 20.

Patent Owner contends that Petitioner has failed to establish that the Anthogyr Catalog qualifies as prior art because the Vogt Declaration never states when the catalog "was allegedly published and/or received by Institut Straumann" and "provides no details about the circumstances under which employees of Institut Straumann received the Anthogyr Catalog, which would be necessary to establish public accessibility." PO Resp. 23.

Although Patent Owner chose not to cross-examine Mr. Vogt, Patent Owner was not under an obligation to do so or present any other countervailing evidence of its own, as it is Petitioner's burden of establishing public accessibility of the prior art references it relies upon for its patentability challenges. *See Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331, 1350 (Fed. Cir. 2016) (finding that petitioner in an AIA proceeding "failed to carry its burden of proving public accessibility"). Moreover, despite Patent Owner contesting the sufficiency of the evidence submitted with the Petition, Petitioner did not present any further evidence with its Reply to support its assertion that the Anthogyr Catalog was publicly accessible before the May 2003 critical date. As such, the only evidence of record concerning public accessibility of the Anthogyr Catalog is the same as what was originally presented with the Petition.

Having considered that evidence anew, and now under the preponderance of evidence standard, we determine that Petitioner has not met its burden to show that the Anthogyr Catalog was publicly accessible prior to the May 2003 critical date. The preponderance of the evidence standard applicable to *inter partes* reviews requires proof that a fact "was more likely than not to have occurred." *See Warner-Lambert Co. v. Teva Pharm. USA, Inc.*, 418 F.3d 1326, 1341 n.15 (Fed. Cir. 2005). In our assessment that this standard has not been met, we have looked at not only the quantity, but also the quality of the evidence presented by Petitioner. In particular, we find that the declaration of Mr. Vogt is vague and does not show when or how the Anthogyr Catalog came to be in his possession. Ex. 1015 ¶¶ 3–5. Furthermore, we find the mere fact that the Anthogyr catalog lists "January 2002" on its back cover to be insufficient to show public

accessibility as it is unclear whether that is a publication date or some other date. *Accord Ex. Parte Rasmussen*, Appeal No. 2011-007741, slip. op. 7 (PTAB Aug. 2, 2013) (finding that dates printed on a catalog were not sufficient evidence of public accessibility because they "do not explicitly indicate whether they are publication dates or some other dates, such as dates for internal use").

Because we determine that Petitioner has not shown that the Anthogyr Catalog qualifies as prior art, we need not further address whether the challenged claims are rendered obvious by the combination of the Anthogyr Catalog with the Update Journal.[14] Accordingly, we determine that Petitioner has not established by a preponderance of the evidence that claims 1–5, 19, and 20 are unpatentable based on this obviousness challenge.

III. PETITIONER'S MOTION TO EXCLUDE

Petitioner filed a motion to exclude certain evidence. Paper 70. Patent Owner filed an opposition to Petitioner's motion to exclude. Paper 84.

Petitioner seeks to exclude Mr. Hurson's Declaration (Ex. 2035) and testimony with respect to obviousness on the grounds that he is not qualified to provide expert testimony about those issues. Paper 70, 2–6. In particular, Petitioner seeks to exclude at least Paragraphs 95–97, 121–131, 136, 139, and 148–178 of the Hurson Declaration and his testimony regarding secondary considerations. *Id.* at 6. Petitioner also seeks to exclude the

[14] In its Reply, Petitioner argues that claims 1–5 and 19 are also anticipated by the Update Journal. Reply 19–20. However, because this theory of unpatentability was not presented in the Petition and was not a basis for our Institution Decision, we decline to consider it for the first time at this stage.

declaration (Ex. 2037) and testimony of Mr. Joe Day. *Id.* at 7–11. Petitioner also seeks to exclude the following exhibits as impermissible hearsay: Exs. 2001–2028, 2034, and 2038–2069. *Id.* at 11–14.

Because we have not relied upon any of the exhibits or testimony sought to be excluded in reaching our conclusions in this decision, we dismiss Petitioner's motion to exclude as moot.

IV. PATENT OWNER'S MOTION TO EXCLUDE

Patent owner also filed a motion to exclude certain evidence. Paper 75. Petitioner filed an opposition to Patent Owner's motion to exclude. Paper 85.

Patent Owner seeks to exclude certain evidence submitted with Petitioner's Reply as untimely and irrelevant. In particular, Patent Owner seeks to exclude the declarations of Messrs. Hantman and Chakir and corresponding exhibits (Exs. 1073–1080). Paper 75, 4–7. Patent Owner seeks to exclude Exhibits 1085, 1087, and 1088–1090 as improper reply evidence and irrelevant to the purported public accessibility of the ABT Catalog. *Id.* at 11–13. For the reasons set forth in our decision above, we consider Petitioner's Reply evidence concerning public accessibility to be proper and relevant, and have considered them for the limited purpose discussed therein. Accordingly, we deny Patent Owner's motion to exclude as to these exhibits.

Patent Owner also seeks to exclude Exhibits 1004, 1016, 1017, 1082 (Supp. Dard Decl.) ¶¶ 8–18, and 30–74,[15] 1083–1084, 1092, 1095, and 1096.

[15] We have considered and relied upon Paragraphs 25 and 26 of the Supplemental Dard Declaration (Ex. 1082), but Patent Owner has not presented any arguments as to why those portions should be excluded.

Id. at 7–11, 13–14. Because we have not relied upon any of these exhibits or testimony in reaching our conclusions in this decision, we dismiss Petitioner's motion to exclude as moot as to these exhibits.

V. PATENT OWNER'S MOTION FOR OBSERVATIONS

Patent Owner filed a Motion for Observation on the cross-examination testimony of Zvi Chakir, Yechiam Hantman, and Michael Dard. Paper 76. Petitioner, in turn, filed a Response. Paper 86. We have considered Patent Owner's observations and Petitioner's responses in rendering this Final Written Decision, and accorded the cross-examination testimony appropriate weight where necessary.

VI. CONCLUSIONS

We conclude that Petitioner has shown by a preponderance of the evidence that the ABT Catalog anticipates claims 1–5 and 19 of the '977 Patent.

We further conclude that Petitioner has not shown by a preponderance of the evidence that the combination of the Anthogyr Catalog with the Update Journal renders obvious claims 1–5, 19, and 20 of the '977 Patent.

VII. ORDER

Accordingly, it is:

ORDERED that claims 1–5 and 19 of U.S. Patent 8,714,977 B2 are held to be unpatentable under 35 U.S.C. § 102(b);

FURTHER ORDERED that claims 1–5, 19, and 20 of U.S. Patent 8,714,977 B2 have not been shown to be unpatentable under 35 U.S.C. § 103(a);

FURTHER ORDERED that Petitioner's Motion to Exclude is dismissed as moot;

FURTHER ORDERED that Patent Owner's Motion to Exclude is dismissed-in-part and denied-in-part; and

FURTHER ORDERED that because this is a Final Written Decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

PETITIONERS:

Paul S. Hunter
Nicola A. Pisano
Andrew R. Cheslock
FOLEY & LARDNER LLP
phunter@foley.com
npisano@foley.com
acheslock@foley.com

PATENT OWNERS:

Michelle E. Armond
John B. Sganga, Jr.
Rabinder N. Narula
Sheila N. Swaroop
KNOBBE, MARTENS, OLSON & BEAR, LLP
2mea@knobbe.com
2jbs@knobbe.com
2rnn@knobbe.com
2sns@knobbe.com

ATTACHMENT B

Trials@uspto.gov
571-272-7822

Paper No. 109
Entered: May 10, 2017

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INSTRADENT USA, INC.,
Petitioner

v.

NOBEL BIOCARE SERVICES AG,
Patent Owner.

Case IPR2015-01786
Patent 8,714,977 B2

Before WILLIAM V. SAINDON, TINA E. HULSE, and CHRISTOPHER G. PAULRAJ, *Administrative Patent Judges.*

PAULRAJ, *Administrative Patent Judge.*

DECISION
Denying Patent Owner's Request for Rehearing
37 C.F.R. § 42.71(d)

I. INTRODUCTION

Patent Owner Nobel Biocare Services AG ("Patent Owner") requests rehearing of our Final Written Decision (Paper 106), in which we found challenged claims 1–5 and 19 of U.S. Patent 8,714,977 B2 ("the '977 Patent") unpatentable under 35 U.S.C. § 102(b). Paper 107 ("Req. Reh'g").

A party dissatisfied with a decision of the Board may file a request for rehearing. 37 C.F.R. § 42.71(d). The party requesting rehearing has the burden of showing the decision should be modified, and "[t]he request must specifically identify all matters the party believes the Board misapprehended or overlooked, and the place where each matter was previously addressed in a motion, an opposition, or a reply." *Id.*

II. DISCUSSION

Patent Owner contends that we misapprehended in the Final Written Decision that our claim construction of "coronal region having a frustoconical shape" in the '977 Patent is unreasonably broad as it would cover "inconsequential variations" in the coronal region, thereby reading the term out of the claim. Req. Reh'g 1–6. In light of a new contention presented in Petitioner's Reply that the implant shown in the Update Journal advertisement anticipated claims 1–5, Patent Owner argues that "adopting Petitioner's construction would incorrectly and broadly encompass dental implants with microscopic frustoconical shapes that are invisible to the human eye." *Id.* at 3–5 (citing Paper 54, 19–20). Patent Owner also argues that our claim construction is inconsistent with Federal Circuit precedent stating that the broadest reasonable construction cannot read out limitations of a patent claim. *Id.* at 6–8. Patent Owner further points out that during prosecution, it submitted an engineering drawing showing a dental implant

with a tiny manufacturing edge break, but the Examiner did not reject the claims based on the edge break. *Id.* at 9–10 (citing Ex. 1071). Additionally, Patent owner contends that our construction is inconsistent with the specification of the '977 Patent. *Id.* at 10–11. Finally, Patent owner contends that the ABT Catalog does not anticipate the claims under the correct construction. *Id.* at 11–12.

We are unpersuaded by these arguments. In our Final Written Decision, we declined to categorically exclude "small bevels" from our construction allowing the claimed "coronal region" to have, either partly or entirely, a frustoconical shape. Paper 106, 11–12. As recognized by Patent Owner, however, we also indicated expressly that the construction adopted in our Final Written Decision did not permit "*any* inconsequential variations in edge sharpness to be a 'frustoconical region.'" *Id.* As such, we did not read out the claim limitation in our construction. The fact that Petitioner belatedly made an additional unpatentability argument that may have been inconsistent with that understanding does not somehow transform our claim construction to encompass a frustoconical region with "inconsequential" variations. Indeed, as further recognized by Patent Owner, we found Petitioner's argument that the Update Journal also anticipated the challenged claims to be untimely, and therefore did not decide the issue of whether the implant shown in that reference satisfied our claim construction. *Id.* at 34 n.14. Furthermore, we fully considered the cited teachings of the specification, and found those teachings to be consistent with our construction encompassing a partly frustoconical coronal region. *Id.* at 12–14.

With respect to the prosecution history, Patent Owner does not point to any paper, motion, or brief in which it previously raised its argument concerning the Examiner's failure to reject the claims over an engineering drawing submitted during prosecution showing a dental implant with a tiny manufacturing edge break. Nor are we aware of anywhere in the record where Patent Owner has made this argument before. Indeed, although the referenced engineering drawing was discussed during the deposition of Patent Owner's expert, it has not been filed as an exhibit in this proceeding and is thus not part of the record. As such, it is not appropriate to raise that argument for the first time in a request for rehearing.

III. CONCLUSION

In sum, Patent Owner has not convinced us that we misapprehended or overlooked any evidence or argument of record that would necessitate a revision of our claim construction of "coronal region having a frustoconical shape."

IV. ORDER

Accordingly, it is:

ORDERED that Patent Owner's Request for Rehearing is *denied*.

PETITIONERS:

Paul S. Hunter
Nicola A. Pisano
Andrew R. Cheslock
FOLEY & LARDNER LLP
phunter@foley.com
npisano@foley.com
acheslock@foley.com

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2mea@knobbe.com
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2sns@knobbe.com