IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

Osseo Imaging, LLC,	:	
Plaintiff,	:	
v.	:	C.A. No. 17-1386-LPS
Planmeca USA Inc.,	:	
Defendant.	:	

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MEMORANDUM OPINION

October 28, 2020
Wilmington, Delaware

STARK, U.S. District Judge:

Pending before the Court are Defendant Planmeca USA, Inc.'s ("Planmeca" or "Defendant") Motions for Summary Judgment of No Infringement and Invalidity in View of Prior Art (D.I. 94) and Invalidity Due to Lack of Written Description and Enablement (D.I. 92). Also pending are the parties' various *Daubert* motions to strike one another's experts' testimony. (D.I. 96, 98, 100, 103)

I. BACKGROUND

Plaintiff Osseo Imaging, LLC ("Osseo" or "Plaintiff") owns a family of patents relating to dental and orthopedic imaging. Osseo alleges in its complaint that Planmeca, a dental imaging company, infringes claims 1-9 of U.S. No. Patent 6,381,301 (the "'301 patent"), claims 1-6 of U.S. Patent No. 6,944,262 (the "'262 patent"), and claims 1-4, 6-10, and 12-24 of U.S. Patent No. 8,498,374 (the "'374 patent") (collectively, the "Asserted Claims" of the "Asserted Patents").[1] (*See* D.I. 1)

In general, the Asserted Patents relate to X-ray imagining that combines "densitometry" (that is, "quantitatively calculated bone density") with tomographic modeling. (*See, e.g.*, '301 patent claim 1) ("A system for tomographically modeling dental and orthopedic structure densitometry . . . .") Osseo accuses Planmeca's Promax 3D Imaging Systems with Romexis software (the "Accused Systems"), which Osseo contends produce 3D X-ray models of a patient's dental structure using cone beam computed tomography ("CBCT"). (D.I. 1 at ¶ 12) Romexis software is used in the Accused Systems to capture, process, and store the 3D models, including overlay and side-by-side functions that link 3D models obtained at different times to

[1] The Asserted Patents all claim priority to the same application filed in December 1999. The '301 and '374 patents contain substantially similar specifications, while the '262 patent includes additional disclosures (*see* columns 5-8). (D.I. 31 at 1-2)

allow comparison. (*Id.*) Planmeca denies Osseo's allegations. (*See generally* D.I. 8)

The Court held a *Markman* hearing on August 27, 2018 (D.I. 41) and construed disputed claims terms on October 30, 2018 (D.I. 44, 46). After discovery was completed, the Court heard argument on the summary judgment and *Daubert* motions on January 8, 2020. (D.I. 143) ("Tr.") A five-day jury trial, which had been scheduled to begin on May 18, 2020, has been continued to July 19, 2021, due to the coronavirus pandemic. (*See* D.I. 18, 152)

II. LEGAL STANDARDS

A. Summary Judgment

Pursuant to Rule 56(a) of the Federal Rules of Civil Procedure, "[t]he court shall grant summary judgment if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law." The moving party bears the burden of demonstrating the absence of a genuine issue of material fact. *See Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 585-86 (1986). An assertion that a fact cannot be – or, alternatively, is – genuinely disputed must be supported either by citing to "particular parts of materials in the record, including depositions, documents, electronically stored information, affidavits or declarations, stipulations (including those made for purposes of the motion only), admissions, interrogatory answers, or other materials," or by "showing that the materials cited do not establish the absence or presence of a genuine dispute, or that an adverse party cannot produce admissible evidence to support the fact." Fed. R. Civ. P. 56(c)(1)(A) & (B). If the moving party has carried its burden, the nonmovant must then "come forward with specific facts showing that there is a genuine issue for trial." *Matsushita*, 475 U.S. at 587 (internal quotation marks omitted). The Court will "draw all reasonable inferences in favor of the nonmoving party, and it may not make credibility determinations or weigh the evidence." *Reeves v. Sanderson Plumbing Prods., Inc.*, 530 U.S. 133, 150 (2000).

To defeat a motion for summary judgment, the nonmoving party must "do more than simply show that there is some metaphysical doubt as to the material facts." *Matsushita*, 475 U.S. at 586; *see also Podobnik v. U.S. Postal Serv.*, 409 F.3d 584, 594 (3d Cir. 2005) (stating party opposing summary judgment "must present more than just bare assertions, conclusory allegations or suspicions to show the existence of a genuine issue") (internal quotation marks omitted). The "mere existence of some alleged factual dispute between the parties will not defeat an otherwise properly supported motion for summary judgment;" a factual dispute is genuine only where "the evidence is such that a reasonable jury could return a verdict for the nonmoving party." *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 247-48 (1986). "If the evidence is merely colorable, or is not significantly probative, summary judgment may be granted." *Id.* at 249-50 (internal citations omitted); *see also Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986) (stating entry of summary judgment is mandated "against a party who fails to make a showing sufficient to establish the existence of an element essential to that party's case, and on which that party will bear the burden of proof at trial"). Thus, the "mere existence of a scintilla of evidence" in support of the nonmoving party's position is insufficient to defeat a motion for summary judgment; there must be "evidence on which the jury could reasonably find" for the nonmoving party. *Anderson*, 477 U.S. at 252.

B. *Daubert* Motions

Federal Rule of Evidence 702 creates a "gatekeeping role for the [trial] judge" to "ensure that an expert's testimony both rests on a reliable foundation and is relevant to the task at hand." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 597 (1993). There are three distinct requirements for admissible expert testimony: (1) the expert must be qualified, (2) the opinion must be reliable, and (3) the opinion must relate to the facts. *See generally Elcock v. Kmart*

Corp., 233 F.3d 734, 741-46 (3d Cir. 2000). Hence, expert testimony is admissible if it "is based on sufficient facts or data," "the testimony is the product of reliable principles and methods," and "the expert has reliably applied the principles and methods to the facts of the case." Fed. R. Evid. 702(b)-(d). Rule 702 embodies a "liberal policy of admissibility." *Pineda v. Ford Motor Co.*, 520 F.3d 237, 243 (3d Cir. 2008) (internal citations omitted). Motions to exclude evidence are committed to the Court's discretion. *See In re Paoli R.R. Yard PCB Litig.*, 35 F.3d 717, 749 (3d Cir. 1994).

III. DISCUSSION

A. Summary Judgment

1. Noninfringement

Under 35 U.S.C. § 271(a), "whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent." To prove infringement, a patentee "must supply sufficient evidence to prove that the accused product or process contains, either literally or under the doctrine of equivalents, every limitation of the properly construed claim." *Eli Lilly & Co. v. Hospira, Inc.*, 933 F.3d 1320, 1328 (Fed. Cir. 2019). Summary judgment of noninfringement may be granted only if a reasonable fact finder could only conclude that one or more limitations of the claims in question do not read on an element of the accused product. *See Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1376 (Fed. Cir. 2005). Thus, summary judgment of noninfringement is appropriate only where, after viewing the facts in the light most favorable to the patentee, there is no genuine issue as to whether the accused product is covered by the claims as construed by the Court. *See id.*

Defendant moves for summary judgment of no literal infringement of the Asserted Claims either literally or under the doctrine of equivalents. (D.I. 94; D.I. 95 at 3-6)

a. Literal Infringement

Literal infringement occurs when each and every limitation recited in a claim is found in the accused product. *See V-Formation, Inc. v. Benetoon Grp. SpA*, 401 F.3d 1307, 1312 (Fed. Cir. 2005). If any claim limitation is absent from the accused product, then there is no literal infringement. *See Amgen Inc. v. F. Hoffman-La Roche Ltd.*, 580 F.3d 1340, 1374 (Fed. Cir. 2009). A court may enter judgment of infringement if there is no factual dispute that the accused device contains every element in an asserted claim. *See Revolution Eyewear, Inc. v. Aspex Eyewear, Inc.*, 563 F.3d 1358, 1369-70 (Fed. Cir. 2009).

Defendant's technical witness, Mr. Timo Müller, explains that Promax 3D Imaging Systems with Romexis software operates as follows: (1) the Promax X-ray unit rotates around a patient's head collecting data on the attenuation of X-ray beams, (2) the collected data is subsequently represented as pixel gray-scale values in the form of 2D images, (3) that data (in the form of 2D images) is sent to a reconstruction server running a Feldkamp algorithm to determine 3D voxel values, (4) these 3D voxel values are then scaled and represented as Hounsfield Unit values ("HU values") in a 3D volume dataset, and (5) the 3D volume dataset is transmitted to a computer running Romexis software, which then displays the 3D images to the user. (D.I. 95 at 2) (citing Ex. C at 16-17, 21-25, 62-65)

Defendant contends that Plaintiff cannot prove literal infringement by Promax 3D Imaging Systems with Romexis software because its infringement theory "hinges on the erroneous premise that HU values are quantitative calculations of bone density." (D.I. 95 at 3) However, the Court agrees with Plaintiff that, taking the evidence in the light most favorable to Plaintiff, a reasonable fact finder could find that HU values used in the Accused Systems meet the "densitometry" limitation, which the Court has construed to mean "quantitively calculated bone density." (D.I. 44 at 8-9; *see also* D.I. 46)

As explained by Plaintiff's technical expert, Dr. Omid Kia, HU values "reflect[] the tissue's attenuation of X-ray beams as they traverse the material, which is related to their physical density." (D.I. 95 Ex. A at ¶ 50) He adds: "[a]lthough HU units are not absolute measurements of material density, they can be used for clinical purposes to quantify bone material density (BMD)." (*Id.*) Dr. Kia concludes that "[t]he numerical value of the pixel/voxel in the images/volumes captured or produced by the [Accused Systems], whether expressed in HU or grayscale, is therefore a quantitative measure of the relative density of the structure shown in the images/volumes." (*Id.* at ¶ 51) A reasonable fact finder could credit all of these opinions and accept Dr. Kia's opinion that Defendant's Accused Systems do infringe. (*See, e.g.*, D.I. 97 Ex. A at ¶ 57)

Defendant submits that HU values are not bone density measurements because the Hounsfield calculation depends on variables that are not specific to bone density (e.g., X-ray photon energy used in scanning, the material's elemental composition, and the material's density). (*See* D.I. 95 at 3; D.I. 125 at 2-4) Plaintiff responds that (i) Defendant seeks to inject an accuracy requirement into the "densitometry" limitation, (ii) Defendant agrees HU values are at least related to and are a function of bone density (*see* D.I. 116 at 10; D.I. 117 Ex. J at 47 (Müller agreeing that gray-scale values forming 2D images, which are scaled and represented as HU values, are "function of both . . . size and density")), and (iii) Defendant's Romexis software product manual refers to HU values and density synonymously (*see* D.I. 116 at 11 (citing Ex. I at 5, 176-77, 226)).

Again, however, in the Court's view a reasonable fact finder could be persuaded by Plaintiff and find that HU values as used in the Accused Systems read on the "densitometry" limitation. The Court's construction of "densitometry" does not require a specific level of

accuracy. (*See* D.I. 116 at 10) Both experts have put forth plausible and reasonable opinions and it will be for the jury to weigh them. (*Compare, e.g.*, D.I. 95 Ex. D at ¶ 26 (Dr. Pelc opining on relationship of water, blood, soft tissue, polystyrene, and cortical bone to linear attenuation and density undergirding HU values and concluding these non-bone factors result in HU values not being quantitative calculation of bone density) *with* D.I. 117 Ex. G at ¶ 50 (Dr. Kia opining that HU values represented by Accused Systems are quantitatively calculated bone density even though "bone, teeth, and/or soft tissue" material is included in calculation))

Accordingly, summary judgment of no literal infringement is not warranted. *See generally Transcenic, Inc. v. Google, Inc.*, 2014 WL 7275835, at *2 (D. Del. Dec. 22, 2014) (denying motion for summary judgment of noninfringement that presented "a 'battle of the experts' that is not amenable to resolution prior to the presentation of evidence, including testimony").

b. Doctrine of Equivalents

Under the doctrine of equivalents ("DOE"), "a product or process that does not literally infringe . . . the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Werner-Kenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 21 (1997). Two frameworks are available for application of the DOE: the "function-way-result test," which asks whether the accused product performs substantially the same function in substantially the same way to obtain the same results as the invention, and the "insubstantial differences test," which asks whether the accused product or process is substantially different from what is patented. *See Graver Tank & Manufacturing Co., Inc. v. Linde Air Prods. Co.*, 339 U.S. 605, 608 (1950); *Mylan Inst. LLC v. Aurobindo Pharma Ltd.*, 857 F.3d 858, 866 (Fed. Cir.

2017).

A patentee must provide particularized testimony and linking arguments in support of a DOE infringement theory and must present supporting evidence on a limitation-by-limitation basis. *See AquaTex Indus., Inc. v. Techniche Sol.*, 479 F.3d 1320, 1328-29 (Fed. Cir. 2007). The "evidence and argument on the doctrine of equivalents cannot merely be subsumed in plaintiff's case of literal infringement." *nCube Corp. v. Seachange Int'l, Inc.*, 436 F.3d 1317, 1325 (Fed. Cir. 2006). Instead, a patentee who "merely reassert[s] its literal infringement arguments as doctrine of equivalents arguments" fails to satisfy its burden, as such a tactic "is insufficient to present a separate infringement theory" under DOE. *ViaTech Techs. Inc. v. Microsoft Corp.*, 733 F. App'x 542, 552-53 (Fed. Cir. 2018).

Here, the Court agrees with Defendant that summary judgment of no DOE infringement is warranted because Dr. Kia fails to provide particularized testimony on a limitation-by-limitation basis. (D.I. 95 at 4-5) Defendant points to paragraph 63 of Dr. Kia's infringement report, where he opines:

> If the grayscale/HU values calculated by the Accused Product are not found to literally meet the densitometry model limitations of the asserted claims, these limitations are satisfied under the doctrine of equivalents. Specifically, the Accused Products perform substantially the same function (producing densitometry/densitometric models for use in assessing bone density), in substantially the same way (determining linear attenuation coefficients of an object in several tomographic scans and combining this information using the Feldkamp algorithm to determine the grayscale values of voxels and the corresponding HU units thereof of a 3D CBCT volume of the object), to achieve substantially the same result (3D volumes that include information for depicting quantitative differences in bone density). *See* Timo Muller Depo. at 22-23, 32-49, 64-71, 127, 167-169. *See also* Paragraphs 49-75, supra.

(D.I. 95 at 5; *see also* Ex. A at ¶ 63; Ex. B at 141-42)

When asked about his DOE opinions, Dr. Kia testified at his deposition that he assumes that HU values are "still usable as a density measurement." (D.I. 95 Ex. B at 145) He also confirmed that "all" of the support for his DOE opinion is found in paragraph 63 – but, as shown above, paragraph 63 merely restates his literal infringement analysis (for why HU values read on the "densitometry" limitation) and cites back ("See also Paragraphs 49-75") to his literal infringement analysis. (*Id.* at 141) Plaintiff's DOE theory, therefore, is just the same literal infringement theory repackaged as DOE, without particularized linking evidence on a limitation-by-limitation basis. It is, then, insufficient and summary judgment is warranted. *See generally Interwoven, Inc. v. Vertical Comp. Sys.*, 2013 WL 3786633, at *6 (N.D. Cal. July 18, 2013) ("The doctrine of equivalents is not designed to give a patentee a second shot at proving infringement to the extent that any limitation is not found to be literally present.").[2]

2. Invalidity

a. Obviousness

A patent may not issue "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains." 35 U.S.C. § 103. Obviousness is a question of law based on underlying factual determinations, including: (1) the scope and content of prior art, (2) differences between the prior art and the claims, (3) the level of ordinary skill in the art, and (4) objective indicia of non-obviousness such as commercial success, long-felt but unsolved needs, failure of others, and unexpected results. *See Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966); *Par Pharm., Inc.*

[2] It is not necessary for the Court to address the parties' ensnarement disputes. (*See, e.g.*, D.I. 95 at 5-6)

v. TWI Pharm., Inc., 773 F.3d 1186 (Fed. Cir. 2014). Obviousness must be proven by clear and convincing evidence, including evidence that there was a reason, suggestion, or motivation in the prior art that would have led one of ordinary skill in the art to combine the references and to have had a reasonable likelihood of success. *See Forest Labs., LLC v. Sigmapharm Lab., LLC*, 918 F.3d 928, 934 (Fed. Cir. 2019).

Defendant contends that claims 1-8 of the '301 patent; claims 1, 2, 4, and 6 of the '262 patent; and claims 1-4, 6-10, and 12-24 of the '374 patent are obvious over a combination of four prior art references: Cann 1980, Guenther '884, Mazess '445, and Brummer '302 (collectively, "the References"). (D.I. 95 at 7-9) According to Defendant, the References "all relate to different ways of processing X-ray data in order to create an image of the scanned structure using similar equipment, and [a person of ordinary skill in the art ("POSA")] would have looked to this body of prior art to identify ways to tomographically model densitometry." (*Id.* at 9)

But Defendant's motion fails to identify evidence from which a reasonable fact finder – taking the evidence in the light most favorable to Plaintiff – would necessarily find that a POSA would have been motivated to combine any (or all) of the References with a reasonable expectation of success. (*See id.* at 7-9; D.I. 116 at 17) At oral argument, Defendant generally pointed the Court to a declaration (and not expert report) from its expert, Dr. Pelc, supporting its summary judgment motion, in which he discusses, over the course of 51 pages, the alleged invalidity of the patents in view of the References. (*See* Tr. at 54-55) (pointing to D.I. 95 Ex. A at ¶¶ 45-182) Defendants may well be able to persuade a jury that a POSA would have been motivated to combine the References and would have had a reasonable expectation of success in doing so, but alternatively the jury could very well not be persuaded on (at least) these required elements of Defendants' obviousness contentions. On summary judgment, then, Defendant has

not presented a meritorious basis on which to prevail. *See generally Bernhardt, L.L.C. v. Collezione Europa USA, Inc.*, 386 F.3d 1371, 1384 (Fed. Cir. 2004) ("[F]act finders are not required to furrow through voluminous evidentiary submissions in order to discern a party's case. A party has an obligation to highlight its contentions to the district court in some form.") (internal citations omitted); *see also Biotec Biologische Naturverpackungen GmbH & Co. KG v. Biocorp, Inc.*, 249 F.3d 1341, 1353 (Fed. Cir. 2001) ("It is not the trial judge's burden to search through lengthy technological documents for possible evidence."). The Court will deny Planmeca's motion with respect to obviousness.[3]

b. Written Description And Enablement

Section 112 of the Patent Act provides, in pertinent part:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same . . . .

35 U.S.C. § 112(a). This portion of the Patent Act sets out separate requirements for written description and enablement, although they "often rise and fall together." *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1344 (Fed. Cir. 2010).

Whether a specification satisfies the written description requirement is a question of fact. *See GlaxoSmithKline LLC v. Banner Pharmacaps, Inc.*, 744 F.3d 725, 729 (Fed. Cir. 2014). To comply with the written description requirement, a patent's specification "must clearly allow persons of ordinary skill in the art to recognize that the inventor invented what is claimed." *Ariad*, 598 F.3d at 1351 (internal brackets and quotation marks omitted). To meet this standard,

[3] Planmeca's motion must also be denied because genuine disputes of material fact exist as to what is disclosed in the prior art References and whether they can be combined to arrive at the Asserted Claims. (*See, e.g.*, D.I. 116 at 16-17; D.I. 125 at 6-7)

the specification must convey that the patentee "had possession of the claimed subject matter as of the filing date." *Id.* at 1350.

Enablement is a question of law based on underlying factual findings. *See MagSil Corp. v. Hitachi Glob. Storage Techs., Inc.*, 687 F.3d 1377, 1380 (Fed. Cir. 2012). "To be enabling, the specification of a patent must teach those skilled in the art how to make and use the full scope of the claimed invention without undue experimentation." *Id.* at 1380 (internal quotation marks omitted). "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations." *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988). To assess whether undue experimentation is required, courts look to the eight *Wands* factors, namely (1) the quantity of experimentation necessary, (2) the amount of direction or guidance presented, (3) the presence or absence of working examples, (4) the nature of the invention, (5) the state of the prior art, (6) the relative skill of those in the art, (7) the predictability or unpredictability of the art, and (8) the breadth of the claims. *See id.* Although "a specification need not disclose what is well known in the art," "[t]ossing out the mere germ of an idea does not constitute enabling disclosure." *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1366 (Fed. Cir. 1997).

The Court will deny Defendant's motion. It does so, initially, because Defendant – like its expert, Dr. Pelc – fails to provide separate analyses under the applicable written description and enablement standards, which (at best) substantially diminishes Defendant's showing. Additionally, and importantly, Defendant provides no evidence of undue experimentation or any analysis of the *Wands* factors, largely rendering the enablement portion of its motion ineffective. Further, as Defendant represents that its two Section 112 argument rise and fall together (*see* Tr. at 7-8), its failings on enablement are likely to (and here do) indicate failings with its written

description showing as well. At bottom, a reasonable fact finder, taking the evidence in the light most favorable to Plaintiff, could find a lack of clear and convincing evidence to support Defendant's written description and enablement defenses.

These broad conclusions are confirmed by examining the details of Defendant's theories of Section 112 invalidity. Defendant fails to show that a reasonable fact finder, taking the evidence in the light most favorable to Plaintiff, would have to find clear and convincing evidence of lack of written description or lack of enablement.

i. Comparing Models Claims

Claims 6 and 12-24 of the '374 patent require a controller that is "adapted to compare" tomographic models, while claims 1-4 and 6 of the '262 patent require a computer for "comparing three-dimensional digital densitometry models" (collectively, the "Comparing Models Claims"). Defendant contends that the Comparing Models Claims are invalid because the specifications of the '374 and '262 patents do "not describe or enable how the computer should compare one claimed model to another claimed model." (D.I. 93 at 3) Defendant's argument largely relies on the Court's conclusion during claim construction that claim 9 of the '301 patent is indefinite under Section 112 ¶ 6, a ruling based on the common specification "only not[ing] the existence of a comparison" and "fail[ing] to disclose how to implement the comparison function in order to compare models," and the Court's observation that "[b]ecause the patent requires quantitatively measuring density, some form of algorithmic comparison is also required, but it is missing." (*Id.* at 15-16)

Plaintiff, through its expert Dr. Kia, responds by pointing to three specification disclosures: (i) '262 patent at 2:48-3:5 (*see also* '374 patent at 2:51-3:3), which discloses that the "densitometry output is digitized and merged to provide a tomographic model, which can be

compared to predetermined parameters unique to the patient," (ii) '262 patent at 5:64-6:9, which states "computer **104** also includes comparison software **118**, which is adapted for digitally comparing baseline and patient-specific dental and orthopedic densitometry models," and (iii) Figures 6A and 6B of the '262 patent, which show a flowchart of the densitometry modeling method with respect to an individual patient.[4] (*See* D.I. 118 at 5; D.I. 119 Ex. C at ¶ 95)

Given the Court's conclusions in connection with indefiniteness, it seems apparent that Planmeca has a strong invalidity case with respect to the Comparing Models Claims,[5] but that is not to say Defendant has shown it is entitled to summary judgment. This is particularly true with respect to lack of enablement, as the record does not appear to contain an analysis of the *Wands* factors and may not contain evidence of undue experimentation. Nor has Defendant provided a meritorious basis for granting summary judgment of invalidity based on lack of written description.

Defendant's motion will be denied with respect to the Comparing Model Claims.

ii. Densitometry Models

Each Asserted Claim contains a "densitometry" requirement. During claim construction, the Court determined that "densitometry" includes measurement by single- and dual-energy level techniques. (D.I. 44 at 8-10 (rejecting Defendant's proposed construction, which would have

[4] The '374 patent does not include the disclosures in columns 5 and 6 and Figures 6A and 6B on which Plaintiff relies.

[5] *Compare also generally* Tr. at 17-18 (Plaintiff arguing POSA would know that "comparison software **118**" could be purchased) *with id.* at 25-26 (Defendant responding: "[W]e're talking about very specific tomographic densitometry modes, and the idea that you could go to the store and pick up software that would compare those models . . . would render the claims invalid over the prior art because if you could just go to the store and be able to compare them, that means that the software would have to anticipate that those things existed in the art anyway.").

limited "densitometry" to "calculated bone morphology density (BMD) from detected and merged intensity values at dual energy levels"); D.I. 46) Defendant's summary judgment motion contends that the specifications of the Asserted Patents lack written description and enablement for generating a densitometry model from single-energy level measurements. (D.I. 93 at 4-5)

But Defendant's enablement challenge rests on a single paragraph of Dr. Pelc's report, which merely states that the Bisek 162 reference (incorporated by reference at, e.g., '301 patent at 5:6-15) discloses dual-energy level densitometry only – without opining as to how undue experimentation would be required to practice densitometry using single-energy level techniques. (*See* D.I. 119 Ex. A at ¶ 503) A reasonable fact finder might not find this (and the totality of the evidence) to be clear and convincing evidence of lack of enablement or written description. Thus, the Court will deny Defendant's motion with respect to the densitometry models.

iii. Electron Beam Source

Claims 1-4 and 6 of the '262 patent require an "energy source," a limitation that appears to be broader than the "X-ray source" of the Asserted Claims of the '301 and '374 patents. Defendant moves for summary judgment based on there being "no enabling description in the '262 patent of how to use an electron beam source to create signals from detected electrons 'representing densitometry of the patient's dental or orthopedic structure' in order to create the claimed 'three-dimensional digital densitometry models.'" (D.I. 93 at 5) (quoting '262 patent, claim 1) Pointing to Figures 4a-4d of the '262 patent, Defendant's expert, Dr. Pelc, opines that a POSA "would view the specification not only as insufficient to teach the use of electron beam sources, but, frankly, would have a hard time taking it seriously." (D.I. 119 Ex. A at ¶ 510)

Yet again, however, Dr. Pelc has offered no analysis of the *Wands* factors or evidence as to how undue experimentation would be required to practice claims 1-4 and 6 of the '262 patent

with an electron beam source. (*See* D.I. 119 Ex. A at ¶ 510; *see also* D.I. 118 at 11) Thus, the portion of Defendant's motion directed to the electron beam source will be denied.[6]

iv. 3D Models

Claims 1-4 and 6 of the '262 patent and claims 3, 9, and 13-24 of the '374 patent ("3D Model Claims") require the creation of a three-dimensional model from densitometry. According to Defendant, the '301 patent specification – to which the '262 and '374 patents claim priority – does not disclose how to create a 3D model based on quantitatively calculated bone density. (*See* D.I. 93 at 6-8; *id.* Ex. G at ¶¶ 18-19, 22) Defendant's expert, Dr. Pelc, opines that because the "specification of the '301 patent does not even mention or discuss 3D . . . models," and the "original claims filed in the December 1, 1999 application do not contain a [3D] requirement," there is no evidence from the written description that the inventor "contemplated a [3D] requirement, much less enabled such a requirement by explaining how to process radiation data to quantitatively calculate bone density in [3D]." (D.I. 119 Ex. A at ¶ 504; *see also* D.I. 93 at 6)

Plaintiff's expert, Dr. Kia, responds by focusing on specification disclosures of tomographic scans, including (i) the '374 patent at 2:51-3:4 (*see also* '301 patent at 2:39-61), which summarizes the invention, (ii) the '374 patent at 4:37-60 (*see also* '301 patent at 4:31-54), which corresponds to Figure 1's diagram of a dental and orthopedic modeling system and refers to a microprocessor using data to create a tomographical densitometry model, and (iii) the '374 patent at Figure 2, which is a flowchart of a dental and orthopedic densitometry modeling

[6] None of this is to say that Planmeca cannot prevail on its Section 112 defenses at trial (with respect to the electron beam source limitation or any other) or that Osseo's response to Planmeca's motion is particularly strong. But those issues are not presently before the Court.

method. (D.I. 119 Ex. C at ¶ 93)

The record, thus, reveals a battle of the experts. A reasonable fact finder taking the evidence in the light most favorable to Plaintiff could credit Dr. Kia's opinion (or, alternatively, Dr. Pelc's). Therefore, summary judgment is not warranted.

B. *Daubert* Motions

The Court will deny all of the parties' *Daubert* motions.

1. Dr. Kia

Defendant moves to strike the expert report and exclude the infringement, apportionment, comparable third-party license, demand, and non-infringing alternatives opinions of Plaintiff's expert, Dr. Omid Kia. (D.I. 96) This motion will be denied.

The Court does not agree with Defendant that Dr. Kia's infringement opinions fail to apply the Court's construction of "densitometry." (D.I. 97 at 2-4) As discussed above with respect to Defendant's motion for summary judgment of non-infringement, a reasonable juror could credit the parties' competing positions, including Dr. Kia's opinion that Defendant's Accused Systems infringe. The parties' dispute as to whether HU values meet the "densitometry" limitation will be tried to the jury.

Dr. Kia's apportionment opinion – that 85% of the features of the Accused Systems are attributable to the Asserted Patents (D.I. 97 at 4-8) – will not be stricken as arbitrary or based on erroneous attribution to non-accused features. As Plaintiff correctly observes, Defendant "will have the opportunity to cross-examine Dr. Kia at trial regarding methodology employed and [the jury] can evaluate how [Plaintiff's] damages expert, Justin Blok, incorporated the information from Dr. Kia in reaching his damages opinion." (D.I. 120 at 9)

With respect to Dr. Kia's analysis of technology in certain third-party license agreements relied on by Plaintiff's damages expert, Mr. Blok (D.I. 97 at 8) (citing D.I. 97 Ex. G at ¶¶ 80-81,

83-86, 87, 93, and 95), the Court is not persuaded that Dr. Kia's analysis of the IDS/Grable, IAC/USF, and FluoroScan/Nasa agreements are unreliable. Defendant's criticisms go to weight and not admissibility.

As to technological demand, any purported gaps in Dr. Kia's credibility or expertise in this area (e.g., his experience with mammography machines) can be fully explored on cross-examination.

Defendant's challenge to Dr. Kia's opinions as to non-infringing alternatives is conclusory, asserting broadly that Dr. Kia's opinion lacks evidentiary support. (*See* D.I. 97 at 10-11) This critique goes to the weight to be attributed to Dr. Kia's opinion, not its admissibility.

Dr. Kia will also be permitted to testify to his opinions in connection with Planmeca's lack of written description and non-enablement defenses. (D.I. 97 at 11-14) The Court does not agree with Defendant that Dr. Kia's report employs unreliable legal standards.

2. Mr. Blok

Defendant moves to strike the expert report and exclude the apportionment opinions of Plaintiff's damages expert, Mr. Justin R. Blok. (D.I. 98) The Court will deny this motion.

Defendant's motion is based on "the same reasons why [Defendant's] technical expert Dr. Omid Kia's report and opinions on apportionment should be struck." (D.I. 99 at 1) As the Court has already denied Defendant's effort to strike the portion of Dr. Kia's analysis on which Mr. Blok relies, this aspect of Defendant's attack on Mr. Blok also necessarily fails. (*See generally id.* at 6-8) (comparing Dr. Kia and Mr. Blok's challenged opinions)

Nor has Defendant persuaded the Court that any part of Mr. Blok's analysis must be stricken based on the law relating to entire market value rule or smallest saleable patent practicing unit. (*Id.* at 10-12) The Court does not perceive a basis to find Mr. Blok's evaluations

– which are based on (at least) the Accused Systems, the field, and *Georgia-Pacific* factors (*see, e.g.*, D.I. 113 Ex. 1 at ¶¶ 29-36, 39, 63-68, 97, 102-03, 107-19) – unreliable. The jury will benefit from Mr. Blok's damages opinion. Defendant's criticisms of it go to weight and not admissibility.

3. Mr. Bone

Plaintiff moves to strike the apportionment-related opinion of Defendant's damages expert, Mr. John Bone. (D.I. 100) The Court will deny this motion.

The Court will not strike Mr. Bone's opinion that damages are approximately $402,000, based on a royalty rate of no more than $200 per unit and a royalty base of 2,010 units, and based on how he arrived at that figure. (D.I. 101 at 4-7) (citing D.I. 102 Ex. A at ¶ 225) As Defendant states, the jury is free to agree with Mr. Bone that "the price differential between the optional and standard software represented the apportionment of the patented technology from other non-patented technology by isolating the value of the software from the value of the entire Accused System and then isolating the value of the software that uses the accused functionality from the total software price." (D.I. 114 at 5)

Nor is the Court persuaded that Mr. Bone's analysis should be stricken for failure to comply with *Georgia-Pacific Corp. v. U.S. Plywood Corp.*, 318 F. Supp. 1116, 1120 (S.D.N.Y. 1970) (requiring, *inter alia*, reasonable royalty reflect amount licensee "would have been willing to pay as a royalty and yet be able to make a reasonable profit"). (*See also* D.I. 101 at 6) As Defendant points out, it appears that Plaintiff disputes whether Mr. Bone's opinion adequately considers a profitability analysis. (D.I. 114 at 6) This is a dispute that goes to weight and not admissibility and may be explored at trial, including during Plaintiff's cross-examination of Mr. Bone.

The Court will also deny Plaintiff's motion to the extent it seeks to exclude Mr. Bone

from testifying that his $200 royalty reflects the maximum damages possible. (*See* D.I. 101 at 6) (citing D.I. 102 Ex. A at ¶ 219; *id.* Table 26) It seems that Plaintiff is worried that Defendant will introduce (arguably incorrect) legal concepts through its expert, but this concern (if it exists) can be addressed through jury instructions.

Finally, Mr. Bone's opinions are not rendered unreliable by being based on discussions with Planmeca's Rule 30(b)(6) witnesses, Messrs. Pienkowski and Muller. (D.I. 101 at 11-14) If Plaintiff believes Mr. Bone has improperly cherry-picked information from what he was told, Plaintiff can explore this topic on cross-examination.

4. Mr. Bone's And Dr. Pelc's Responsive Opinions

Plaintiff moves to exclude the responsive, alternative apportionment analyses of Defendant's damages expert, Mr. Bone, and Defendant's technical expert, Dr. Pelc. (*See* D.I. 101 at 7-11; D.I. 104 at 10-12) The Court will deny these motions.

Mr. Bone submits "opinions correcting and rebutting those offered by Mr. Blok," including by providing an "adjustment analysis" (found in Table 17) of Dr. Kia's feature attribution percentage (85%) down to 24%. (D.I. 114 at 7) Plaintiff has not persuaded the Court that Mr. Bone's reliance on Dr. Pelc provides a basis for excluding the responsive reports. At bottom, each parties' experts are pointing the finger at each other's methodologies as incorrect. The experts' criticisms of one another may be explored at trial and go to the weight and not admissibility of their opinions.

With respect to Plaintiff's motion to exclude obviousness, noninfringement, and apportionment opinions of Dr. Pelc, Plaintiff has not persuaded the Court that Dr. Pelc purposefully disregarded the Court's construction of "densitometry" or fails to apply proper legal principles. (*See* D.I. 104) Nor has Plaintiff shown that Dr. Pelc lacks sufficient qualifications, as he appears to meet Plaintiff's own definition of a POSA (as provided by Dr. Kia): "an individual

with a bachelor's degree in electrical and computer engineering or equivalent technical degree and at least 3-5 years of experience in diagnostic imaging systems." (D.I. 115 Ex. C at ¶ 15; *see also* D.I. 105 Ex. A at ¶¶ 3-9 (Dr. Pelc discussing his qualifications, which include a doctorate in medical radiological physics and 40 years working in diagnostic imaging)) Plaintiff may, of course, challenge at trial Dr. Pelc's opinions as to the "level of accuracy and precision" needed in dental imaging systems and their "usefulness to dentists." (D.I. 104 at 7-8) (citing D.I. 105 Ex. D at 123-24)

IV. CONCLUSION

An appropriate Order follows.