

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

VARIAN MEDICAL SYSTEMS, INC.,

Plaintiff,

v.

ELEKTA AB, ELEKTA HOLDINGS U.S.,
INC., ELEKTA INSTRUMENT AB, and
ELEKTA INC.,

Defendants.

C.A. No. 15-871-LPS

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MEMORANDUM OPINION

February 16, 2017
Wilmington, Delaware



STARK, U.S. District Judge:

Varian Medical Systems, Inc. (“Varian”) filed suit against Defendants Elekta AB, Elekta Holdings U.S., Inc., Elekta Instrument AB, and Elekta Inc. (collectively, “Elekta”), alleging that Elekta’s Leksell Gamma Knife Icon product infringes Varian’s U.S. Patent No. 6,888,919, which generally describes and claims a radiotherapy machine. (See D.I. 52 at ¶¶ 2-3, 32) Presently before the Court is the issue of claim construction. The parties submitted technology tutorials (see D.I. 69, 70) and briefs (see D.I. 71, 72, 76, 77). Both parties also submitted expert declarations (see D.I. 73, 76 Ex. C, 78), which the Court has considered. The Court held a claim construction hearing on December 19, 2016. (See D.I. 126 (“Tr.”))

I. LEGAL STANDARDS

The ultimate question of the proper construction of a patent is a question of law. See *Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 837 (2015) (citing *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 388-91 (1996)). “It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.” *Id.* at 1324. Instead, the court is free to attach the appropriate weight to appropriate sources “in light of the statutes and policies that inform patent law.” *Id.*

“[T]he words of a claim are generally given their ordinary and customary meaning . . . [which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312-13 (internal citations and quotation marks omitted). “[T]he ordinary meaning of a

claim term is its meaning to the ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). The patent specification “is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Vitronics Corp. v. Conceptor, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

While “the claims themselves provide substantial guidance as to the meaning of particular claim terms,” the context of the surrounding words of the claim also must be considered. *Phillips*, 415 F.3d at 1314. Furthermore, “[o]ther claims of the patent in question, both asserted and unasserted, can also be valuable sources of enlightenment . . . [b]ecause claim terms are normally used consistently throughout the patent” *Id.* (internal citation omitted).

It is likewise true that “[d]ifferences among claims can also be a useful guide For example, the presence of a dependent claim that adds a particular limitation gives rise to a presumption that the limitation in question is not present in the independent claim.” *Id.* at 1314-15 (internal citation omitted). This “presumption is especially strong when the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” *SunRace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1303 (Fed. Cir. 2003).

It is also possible that “the specification may reveal a special definition given to a claim term by the patentee that differs from the meaning it would otherwise possess. In such cases, the inventor’s lexicography governs.” *Phillips*, 415 F.3d at 1316. It bears emphasis that “[e]ven when the specification describes only a single embodiment, the claims of the patent will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Hill-Rom Servs., Inc. v. Stryker*

Corp., 755 F.3d 1367, 1372 (Fed. Cir. 2014) (quoting *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004)) (internal quotation marks omitted).

In addition to the specification, a court “should also consider the patent’s prosecution history, if it is in evidence.” *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996). The prosecution history, which is “intrinsic evidence,” “consists of the complete record of the proceedings before the PTO [Patent and Trademark Office] and includes the prior art cited during the examination of the patent.” *Phillips*, 415 F.3d at 1317. “[T]he prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” *Id.*

In some cases, “the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva*, 135 S. Ct. at 841. Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Markman*, 52 F.3d at 980. For instance, technical dictionaries can assist the court in determining the meaning of a term to those of skill in the relevant art because such dictionaries “endeavor to collect the accepted meanings of terms used in various fields of science and technology.” *Phillips*, 415 F.3d at 1318. In addition, expert testimony can be useful “to ensure that the court’s understanding of the technical aspects of the patent is consistent with that of a person of skill in the art, or to establish that a particular term in the patent or the prior art has a particular meaning in the

pertinent field.” *Id.* Nonetheless, courts must not lose sight of the fact that “expert reports and testimony [are] generated at the time of and for the purpose of litigation and thus can suffer from bias that is not present in intrinsic evidence.” *Id.* Overall, while extrinsic evidence “may be useful” to the court, it is “less reliable” than intrinsic evidence, and its consideration “is unlikely to result in a reliable interpretation of patent claim scope unless considered in the context of the intrinsic evidence.” *Id.* at 1318-19. Where the intrinsic record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1308 (Fed. Cir. 1999) (citing *Vitronics*, 90 F.3d at 1583).

Finally, “[t]he construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (quoting *Modine Mfg. Co. v. U.S. Int’l Trade Comm’n*, 75 F.3d 1545, 1550 (Fed. Cir. 1996)).

II. CONSTRUCTION OF DISPUTED TERMS

A. “gantry”¹

| |
|---|
| Varian plain and ordinary meaning, or if a construction is necessary, “structure that holds radiation source(s) and/or imager(s)” alternatively, “structure that is designed to hold radiation source(s) and/or imager(s)” (<i>see</i> Tr. at 21) |
| Elekta “arm” |
| Court “structure that is designed to hold radiation source(s) and/or imager(s)” |

The parties first dispute whether “gantry” has a plain and ordinary meaning agreed-to and known by persons of ordinary skill in the art (“POSA”) in the radiotherapy field. Varian, supported by expert opinion, contends that “gantry” is a term of art “used for decades to describe particular structures for holding radiation source(s) and/or imager(s) in the context of a radiotherapy or radiation-based imaging device” (D.I. 73 at ¶ 28), and points to art cited on the face of the ’919 patent that uses the term in this manner (*see* Tr. at 13-14). Elekta, also supported by expert opinion, counters that “gantry” has no “definite, specific meaning to those of ordinary skill in the radiotherapy field.” (D.I. 76 Ex. C at ¶ 23) Hence, according to Elekta, “[a] person of ordinary skill in the art may understand that a radiotherapy machine has a ‘gantry’ but may not agree as to what particular part or component of the machine constitutes the ‘gantry.’” (*Id.*) The Court agrees with Elekta. Apart from its own expert, Varian has identified no persuasive evidence or authoritative source to support that gantry has a single, agreed-upon meaning in the

¹This term appears in claims 1-4, 9, 11, and 13 of the ’919 patent.

art. Therefore, the Court turns to the specification for guidance as to the meaning a POSA would find the inventor used.

In the context of the '919 patent, the term "gantry" is used to refer to the structure to which radiation sources and imagers are attached. The claims indicate that the gantry holds radiation sources and imagers. *See, e.g.,* '919 patent col. 8 ll. 52-59 (claim 1 reciting "a first therapeutic radiation source attached to a first gantry" and "an imager attached to . . . the second gantry"); ll. 60-61 (claim 2 reciting "at least one second radiation source is attached to the second gantry"). The specification is consistent with this understanding of "gantry." *See, e.g.,* col. 2 l. 64 - col. 3 l. 10.

Elekta does not dispute that a gantry can be a structure that holds radiation sources and imagers (*see* Tr. at 44-45) but argues that, in the context of this particular patent, that structure, more narrowly, must be an "arm." According to Elekta, the terms "gantry" and "arm" have the same meaning because the patent uses those terms interchangeably. *See* col. 5 l. 6 - col. 6 l. 21. But the patent does so only when discussing Figures 2A and 2B, which are specific embodiments of the claimed invention. *See* col. 5 ll. 6-9; col. 6 ll. 7-9. Thus, while it is true that, in these preferred embodiments, the gantry is an "arm," there is no suggestion in the specification that the invention as a whole always requires the gantry to be an arm. *See Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346-47 (Fed. Cir. 2015).

Elekta further contends that Varian's proposed construction leads to the absurd result that a floor or ceiling could be a gantry, pointing to a commercial product in which a floor and ceiling are configured to hold radiation sources and imagers. (*See* Tr. at 45-46) But this may not be an absurd result, particularly if the floor and ceiling of that product are specifically designed to

hold the radiation sources and imagers. (*See id.* at 50-51) Accordingly, the Court will adopt Varian’s alternative proposal and construe “gantry” to mean “structure that is designed to hold radiation source(s) and/or imager(s).”

B. “[gantry] that is rotatable”²

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|---|
| Varian “[gantry] that is configured to revolve around a target volume on its pivot axis” |
| Elekta plain and ordinary meaning, or if a construction is necessary, “[gantry] that is configured to revolve on an axis” |
| Court “[gantry] that is configured to revolve on an axis” |

The parties’ dispute centers on whether a rotatable gantry must be configured to revolve in a particular manner. Varian argues that rotation must center around the target volume and the rotatable gantry must revolve around its own pivot axis. The Court disagrees on both points.

There is no dispute that “rotatable” has a “widely accepted meaning.” *Phillips*, 415 F.3d at 1314. The plain meaning of “rotate” is “to turn about an axis or a center: REVOLVE.” (*See, e.g., D.I. 72 Ex. 1*) This plain meaning does not require revolution about any particular axis or around any specified three-dimensional space but simply requires that the gantry be able to revolve. Nor does other claim language impose any limitation on that rotation. Therefore, “[a]bsent lexicography or disavowal, [the Court] do[es] not depart from the plain meaning of the claims.” *Luminara Worldwide, LLC v. Liown Elecs. Co.*, 814 F.3d 1343, 1353 (Fed. Cir. 2016). The exacting standards for lexicography or disavowal are not met here.

Varian argues that the specification makes clear that a gantry rotates around a target

²This term appears in claims 1-4, 9, 11, and 13 of the ’919 patent.

volume on its pivot axis. (See D.I. 71 at 10) The patent states: “In order to irradiate the target volume from different directions without turning the patient over, 360° rotation of the support structure holding the radiation source is needed.” ’919 patent col. 2 ll. 47-50. This statement does not constitute a redefinition of “rotatable” or a disclaimer of claim scope, and, therefore, does not provide a basis for departing from the plain meaning of “rotatable.” See *Hill-Rom*, 755 F.3d at 1372. Other passages cited by Varian fare no better (see D.I. 71 at 10-11), as they describe specific embodiments of the patented invention, not the claimed invention as a whole. See *Luminara*, 814 F.3d at 1353.

Having found no basis to narrow the claims in the manner requested by Varian, the Court will adopt Elekta’s proposed construction that “[gantry] that is rotatable” means “[gantry] that is configured to revolve on an axis,” which is supported by the evidence.

C. “articulable end of the [second gantry]”³

| |
|---|
| <p>Varian “the jointed end portion of the [second gantry] that is moved in and out of an operative position through pivoting”</p> |
| <p>Elekta “an end portion of the [second gantry] that has jointed segments”</p> |
| <p>Court “the jointed end portion of the [second gantry]”</p> |

The parties dispute whether the articulable end must possess certain characteristics. As with “rotatable,” “articulable” has a plain meaning. “Articulable” is generally defined as “capable of being articulated,” and “articulated” means “having a hinge or pivot connection esp. to allow negotiation of sharp turns.” (D.I. 72 Ex. 1) The specification’s description of the

³This term appears in claims 1-4, 9, 11, and 13 of the ’919 patent.

articulable end is consistent with the plain meaning of “articulable.” *See* ’919 patent col. 5 l. 55 - col. 6 l. 6. Additionally, the parties agree that the “articulable end” is the end portion of the second gantry and includes one or more joints. (*See* D.I. 71 at 14; D.I. 76 at 15)

Neither party identifies any compelling reason to impose additional limitations on this term. Elekta seeks to add that the end portion has more than one “segment.” But it is conceivable that an embodiment with a single joint has an articulable end with only one “segment,” with the other segment attached to the joint being the remainder of the second gantry. (*See* D.I. 77 at 12-13) Varian proposes adding that the articulable end is moved into and out of an “operative position,” citing to the specification’s description of the articulable end. (*See* D.I. 71 at 13) But Varian provides no persuasive reason to narrow the claims to these embodiments, *see Williamson*, 792 F.3d at 1346-47, and the specification nowhere uses the phrase “operative position.”

Accordingly, the Court will construe “articulable end of the [second gantry]” to mean “the jointed end portion of the [second gantry].”

D. “Wherein” clauses

“wherein the first therapeutic radiation source to propagate therapeutic energy at a first energy level”⁴

Varian

plain and ordinary meaning, or if a construction is necessary, “wherein the first radiation source is capable of treating a disease or disorder by propagating radiation at a first energy level (e.g., megavolt range)”

⁴This term appears in claim 3 of the ’919 patent.

Elekta

Indefinite, or alternatively, “wherein the first therapeutic radiation source is capable of propagating therapeutic energy at a first energy level”

Court

“wherein the first therapeutic radiation source is capable of propagating therapeutic energy at a first energy level”

“wherein at least one second radiation source to propagate diagnostic energy at a second energy level”⁵

Varian

plain and ordinary meaning, or if a construction is necessary, “wherein at least one second radiation source is capable of providing targeting information by propagating radiation at a second energy level (e.g., kilovolt range)”

Elekta

Indefinite, or alternatively “wherein at least one second radiation source is capable of propagating diagnostic energy at a second energy level”

Court

“wherein at least one second radiation source is capable of propagating diagnostic energy at a second energy level”

Elekta argues that these terms are nonsensical on their face because the claims are missing a transition before “to propagate,” adding that different transitions may have been intended, but insertion of each would result in a different claim scope. (*See* D.I. 72 at 16-19) Thus, according to Elekta, these claims are indefinite because a person of skill in the art confronting this ambiguity would not be reasonably certain about the scope of the claim.

A patent claim is indefinite if, “viewed in light of the specification and prosecution history, [it fails to] inform those skilled in the art about the scope of the invention with reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). A party challenging the validity of a patent or claim has the burden of establishing invalidity, which

⁵This term appears in claim 4 of the '919 patent.

generally must be proven by clear and convincing evidence. *See id.* at 2130 n.10 (citing 35 U.S.C. § 282); *see also Microsoft Corp. v. i4i Ltd. P'ship*, 564 S. Ct. 2238, 2242 (2011).

Varian contends that a person of ordinary skill in the art viewing the specification and prosecution history would understand, with reasonable certainty, that the claimed radiation sources must be *capable of* propagating energy. The specification refers to the radiation sources as being capable of propagating radiation. *See* '919 patent col. 2 ll. 27-40. The claims as originally filed recited that the "radiation source is capable of propagating." (*See* D.I. 63 Ex. 2 at 86) Thus, in the context of this patent, Varian's expert opines that "there is only one supported reading" of the claims: "using the words 'capable of'" in place of the missing transition. (D.I. 78 at ¶¶ 17-19) Elekta does not rebut Varian's expert with its own or otherwise present evidence of how an ordinarily skilled artisan would understand these claims. Elekta has failed to persuade the Court that a person of ordinary skill in the art would lack reasonable certainty about the claim scope.

The Court is not persuaded, however, to adopt Varian's proposed constructions. Varian seeks to re-draft the claims and, at least with respect to claim 4, introduce limitations that are not required by the claim language. (*See* D.I. 72 at 20, Tr. at 116) Therefore, the Court will adopt Elekta's alternative constructions of these terms, which are consistent with the intrinsic and extrinsic evidence.

III. CONCLUSION

The Court construes the disputed terms as explained above. An appropriate Order follows.