

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF OREGON

SKEDCO, INC., an Oregon corporation,

Plaintiff,

No. 03:13-cv-00968-HZ

v.

STRATEGIC OPERATIONS, INC., a  
California corporation,

OPINION & ORDER

Defendant.

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1 - OPINION & ORDER

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HERNANDEZ, District Judge:

Plaintiff Skedco, Inc. brings this action against Defendant Strategic Operations, Inc., alleging that Defendant infringes Claims 18-20 of United States Patent No. 8,342,652 ("the '852 Patent") which discloses a system for simulating hemorrhages in the training of first responders. The United States, through the Secretary of the Army, owns the '852 Patent. Plaintiff alleges that it is the sole and exclusive licensee of the '852 Patent under an agreement which also gives Plaintiff the right to bring this action in its own name. Sec. Am. Compl. at ¶¶ 10, 11.

On May 16, 2014, the parties submitted a Joint Proposed Claim Construction Chart identifying six disputed terms or phrases in Claim 18 of the '852 Patent. The parties then simultaneously filed opening claim construction memoranda and simultaneous responsive memoranda. Oral argument was held July 25, 2014.

At the conclusion of oral argument, I resolved the disputes as to five of the contested terms or phrases. I took construction of the phrase "controller connected to" under advisement and allowed Defendant to submit a response to a newly cited case by Plaintiff. Having now considered the case and the supplemental briefing, I construe "controller" as "an activation mechanism," and I construe "connected to" as "joined, united, or linked to."

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## CLAIM CONSTRUCTION STANDARDS

### I. General Rules

"[T]he construction of a patent, including terms of art within its claim, is exclusively within the province of the court." Markman v. Westview Instruments, Inc., 517 U.S. 370, 372 (1996). Claims are construed independently and not simply as a choice between the parties' proposed constructions. Exxon Chem. Patents, Inc. v. Lubrizol Corp., 64 F.3d 1553, 1555 (Fed. Cir. 1995). "[C]laims should be so construed, if possible, as to sustain their validity." ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed. Cir. 1984). The claim language specifies "the subject matter which the applicant regards as his invention." Markman, 517 U.S. at 373 (quoting 35 U.S.C. § 112).

To construe a patent claim, courts look to the language of the claims in the patent itself, the description in the patent's specification, and the prosecution history of the patent, all of which constitute a record "on which the public is entitled to rely." Vitronics Corp. v. Conceptor, Inc., 90 F.3d 1576, 1583 (Fed. Cir. 1996); see also Dow Chem. Co. v. Sumitomo Chem. Co., 257 F.3d 1364, 1372 (Fed. Cir. 2001). Claim language is given its "ordinary and accustomed meaning as understood by one of ordinary skill in the art." Dow Chem. Co., 257 F.3d at 1372 (citation omitted). Courts cannot rewrite claims, but must "give effect to the terms chosen by the patentee." K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1364 (Fed. Cir. 1999). In most cases, the court should be able to resolve ambiguous claim terms by analyzing only the intrinsic evidence. See Phillips v. AWH Corp., 415 F.3d 1303, 1313-14 (Fed. Cir. 2005) (en banc).

### II. Claim Language

"The actual words of the claim are the controlling focus." Digital Biometrics, Inc. v.

Identix, Inc., 149 F.3d 1335, 1344 (Fed. Cir. 1998). The starting point for claim construction is a disputed term's ordinary meaning. Phillips, 415 F.3d at 1313. Ordinary meaning, in the patent claim construction context, is the meaning that a person of ordinary skill in the art would attribute to a claim term in the context of the entire patent at the time of the invention, *i.e.*, as of the effective filing date of the patent application. ICU Med., Inc. v. Alaris Med. Sys., Inc., 558 F.3d 1368, 1374 (Fed. Cir. 2009).

There is a "heavy presumption" that a claim term carries its ordinary and customary meaning, and any party seeking to convince a court that a term has some other meaning "must, at the very least," point to statements in the written description that affect the patent's scope.

Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed. Cir. 1999) (internal quotations marks omitted). This may be accomplished if: (1) "a different meaning [is] clearly and deliberately set forth in the intrinsic materials" of the patent; or (2) use of "the ordinary and accustomed meaning . . . would deprive the claim of clarity[.]" K-2 Corp., 191 F.3d at 1363. In making this assessment, the court should use common sense and "the understanding of those of ordinary skill in the art" of the patent at issue, unless the patent history supplies another meaning. Id. at 1365; Digital Biometrics, 149 F.3d at 1344.

"An accused infringer may overcome this 'heavy presumption' and narrow a claim term's ordinary meaning, but he cannot do so simply by pointing to the preferred embodiment or other structures or steps disclosed in the specification or prosecution history." CCS Fitness, Inc. v. Brunswick Corp., 288 F.3d 1359, 1366 (Fed. Cir. 2002). As explained by the Federal Circuit:

[A] court may constrict the ordinary meaning of a claim term in at least one of four ways. First, the claim term will not receive its ordinary meaning if the patentee acted as his own lexicographer and clearly set forth a definition of the

disputed claim term in either the specification or prosecution history. Second, a claim term will not carry its ordinary meaning if the intrinsic evidence shows that the patentee distinguished that term from prior art on the basis of a particular embodiment, expressly disclaimed subject matter, or described a particular embodiment as important to the invention.

Third, . . . a claim term also will not have its ordinary meaning if the term chosen by the patentee so deprives the claim of clarity as to require resort to the other intrinsic evidence for a definite meaning. Last, as a matter of statutory authority, a claim term will cover nothing more than the corresponding structure or step disclosed in the specification, as well as equivalents thereto, if the patentee phrased the claim in step- or means-plus-function format.

Id. at 1366-67 (citations, internal quotation marks, and brackets omitted).

### III. The Patent's Specification

"[C]laims are always construed in light of the specification, of which they are a part." Netword, LLC v. Centraal Corp., 242 F.3d 1347, 1352 (Fed. Cir. 2001). "[T]hat claims are interpreted in light of the specification does not mean that everything expressed in the specification must be read into all the claims." SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1121 (Fed. Cir. 1985) (internal quotations marks omitted). It is improper to import, or "read in" to a claim, a limitation from the specification's general discussion, embodiments, and examples. E.g., Enercon GmbH v. Int'l Trade Comm'n, 151 F.3d 1376, 1384 (Fed. Cir. 1998); Intel Corp. v. U.S. Int'l Trade Comm'n, 946 F.2d 821, 836 (Fed. Cir. 1991) ("[w]here a specification does not require a limitation, that limitation should not be read from the specification into the claims") (internal quotation marks omitted); Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1571 (Fed. Cir. 1988) ("[a]lthough the specification may aid the court in interpreting the meaning of disputed language in the claims, particular embodiments and examples appearing in the specification will not generally be read into the claims.").

Still, "[c]laims are not interpreted in a vacuum[.]" Slimfold Mfg. Co. v. Kinkead Indus.,

Inc., 810 F.2d 1113, 1116 (Fed. Cir. 1987). "[T]he 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, 90 F.3d at 1582. Thus, it is improper to eliminate, ignore, or "read out" a claim limitation in order to extend a patent to subject matter disclosed, but not claimed. See, e.g., Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp., 93 F.3d 1572, 1582-83 (Fed. Cir. 1996).

Claims may not "enlarge what is patented beyond what the inventor has described as the invention." Network, LLC, 242 F.3d at 1352. For example, when the patent specification describes the invention as including a feature, the claims should be construed to require that feature. See, e.g., Watts v. XL Sys., Inc., 232 F.3d 877, 883 (Fed. Cir. 2000). Similarly, when the specification criticizes or disclaims certain features in the prior art, the claims should not be read to encompass the criticized features. SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc., 242 F.3d 1337, 1341 (Fed. Cir. 2001) (finding that the criticism of one type of "lumen" in patent excluded that type from construction of the claim term).

Finally, claims should not be limited to the preferred embodiment. CVI/Beta Ventures, Inc. v. Tura LP, 112 F.3d 1146, 1158 (Fed. Cir. 1997); see also Amhil Enter., Ltd. v. Wawa, Inc., 81 F.3d 1554, 1559 (Fed. Cir. 1996) (holding that "[a] preferred embodiment . . . is just that, and the scope of a patentee's claims is not necessarily or automatically limited to the preferred embodiment").

"[T]he distinction between using the specification to interpret the meaning of a claim and importing limitations from the specification into the claim can be a difficult one to apply in practice." Phillips, 415 F.3d at 1323. "[T]here is sometimes a fine line between reading a claim

in light of the specification, and reading a limitation into the claim from the specification." Decisioning.com, Inc. v. Federated Dep't Stores, Inc., 527 F.3d 1300, 1307-08 (Fed. Cir. 2008) (internal quotation marks omitted). "[A]ttempting to resolve that problem in the context of the particular patent is likely to capture the scope of the actual invention more accurately than either strictly limiting the scope of the claims to the embodiments disclosed in the specification or divorcing the claim language from the specification[.]" Id. at 1308 (internal quotation marks omitted). There is therefore "no magic formula or catechism for conducting claim construction," and the court must "read the specification in light of its purposes in order to determine whether the patentee is setting out specific examples of the invention to accomplish those goals, or whether the patentee instead intends for the claims and the embodiments in the specification to be strictly coextensive." Id. (internal quotation marks omitted). In walking this "tightrope," Andersen Corp. v. Fiber Composites, LLC, 474 F.3d 1361, 1373 (Fed. Cir. 2007), the court hews to the question of "how a person of ordinary skill in the art would understand the claim terms." Phillips, 415 F.3d at 1323.

#### IV. Prosecution History

Prosecution history of a patent with the United States Patent and Trademark Office (USPTO) "limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance." Jonsson v. Stanley Works, 903 F.2d 812, 817 (Fed. Cir. 1990) (internal quotation marks omitted). The prosecution "history contains the complete record of all the proceedings before the Patent and Trademark Office, including any express representations made by the applicant regarding the scope of the claims. As such, the record before the [USPTO] is often of critical significance in

determining the meaning of the claims." Vitronics, 90 F.3d at 1582-83. Any statements or actions made in the prosecution history by the patentee characterizing what the claimed invention includes or excludes provide notice to the public as to the scope of the claims and therefore are binding on the construction of the claims. See, e.g., Hockerson–Halberstadt, Inc. v. Avia Group Int'l, Inc., 222 F.3d 951, 957 (Fed. Cir. 2000) (allowing patentee to erase actions in the prosecution history would be "inimical to the public notice function provided by the prosecution history.").

#### V. Extrinsic Evidence

Consideration of intrinsic evidence will resolve any claim term ambiguity in most circumstances. See Phillips, 415 F.3d at 1313–14. Where it does not, however, the court may consider certain "extrinsic evidence." See id. at 1317. Expert testimony, for example, may provide helpful background on the technology at issue, explain how an invention works, or establish that a claim term has a particular meaning in the relevant field. See id. at 1319. Dictionaries and treatises may also be helpful in this regard. Id. at 1318. However, precedent counsels against reliance on dictionary definitions at the expense of the specification because such reliance "focuses the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent." Id. at 1321; see also Nystrom v. TREX Co., 424 F.3d 1136, 1145 (Fed. Cir. 2005).

In the end, the court's ultimate goal is to construe the disputed terms in a manner consistent with the way the inventor defined them and a person of ordinary skill in the art would understand them. j2 Global Commc'ns Inc. v. Captaris Inc., No. CV 09–04150 DDP (AJWx), 2011 WL 837923, at \*2 (C.D. Cal. Mar. 4, 2011). "The 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." Phillips, 415 F.3d at 1316 (internal quotation marks omitted).

## DISCUSSION

### I. Overview of the '852 Patent

The short description of the '852 Patent is a "Trauma Training System." Ex. A to Sec. Am. Compl. at 1. It was issued by the USPTO on January 1, 2013. Id. The abstract describes the invention as follows:

A system for simulating one or more hemorrhages in order to provide a more dynamic and realistic hemorrhage simulation in order to train medical personnel and other critical care givers, such as first responders, medics, and emergency medical technicians (EMTs) on treating hemorrhages. The system includes a reservoir, a flow controller, and at least one conduit connected to at least one simulated wound site wherein the system supplies fluid to the simulated wound site in order to simulate a hemorrhage. The system may further include a plurality of wound sites that have their respective fluid flows controlled by the fluid flow controller. In at least one embodiment, the reservoir and the flow controller are housed within a bag. In at least one embodiment, the system further includes an audio system for providing audio cues to the simulation participants to enhance the realism of the simulation.

### Id.

Plaintiff alleges that Defendant infringes at least Claims 18, 19, and 20 of the '852 Patent.

Those claims state:

**18.** A trauma training system for replicating at least one hemorrhage, said system comprising:

- a collapsible reservoir having a capacity capable of storing fluid;
- a pump in fluid communication with the cavity of said reservoir;
- at least one valve in fluid communication with said pump;
- a controller connected to said pump and said at least one valve; and
- at least one wound site detachably in fluid communication with said valve, wherein fluid is provided to said wound site to simulate a hemorrhage.

**19.** The trauma training system according to claim **18**, wherein said at least one wound site includes:

- a first wound site conduit connected to said valve;
- a first wound site connected to first wound site conduit;
- a second wound site conduit connected to said valve; and
- a second wound site connected to said second wound site conduit.

**20.** The trauma training system according to claim **18**, further comprising a container housing said reservoir, said pump, and said at least one valve.

Ex. A to Sec. Am. Compl. at 29 (Col. 14, lines 3-24).<sup>1</sup>

## II. Construction of "Controller"

Defendant argues that the word "controller" should be interpreted as "an activation mechanism for said pump and said valve." Jt. Prop. Claim Constr. Chart at 9. Plaintiff contends that "controller" needs no construction. Id. Alternatively, Plaintiff argues that the word should be construed only as "an activation mechanism." Pl.'s Op. Claim Constr. Brief at 13.

Plaintiff argues that the word "controller" needs no construction because it is self-explanatory and is a well-known term having an ordinary meaning to a person of ordinary skill in the art. Defendant suggests that because the patent claims and specification refer to several "controller" terms, some definition of controller is appropriate. In the claims themselves, the majority of the references are to the single word "controller." E.g., 11:49, 53 (Claim 1); 11:67 (Claim 4); 14:10 (Claim 18). However, the claims contain other uses of the word as well. E.g., 12:40 (Claim 10 referring to a "programmable controller"); 12:49-50 (Claim 12 referring to a "programmable controller"); 13:6 (Claim 16 referring to a "remote controller"); 13:15, 18 (Claim 17 referring to a "flow controller").

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<sup>1</sup> All further references to the '852 Patent will be to this Exhibit and will be denoted simply by the column and line number referred to, such as 14:3-24.

Additional references are found in the specification. E.g., 3:32, 42-43, 44, 47, 48, 49 (all references to "fluid flow controller"); 4:39-40 (reference to "flow controller"); 4:45 (reference to "remote control"); 4:47 (reference to "adjustable controller"); 5:11-12 (reference to "programmable controller"); 5:49 (reference to "remote controller").

It is clear from the specification that the "fluid flow controller" designated as "120," is distinct from the "controller" designated as "126." In fact, the controller 126 is one part of what comprises the fluid flow controller 120. For example, the specification describes Figure 2A as "an exemplary embodiment of the flow controller **120A** having a power supply **130** and a controller (or activation mechanism) **126** connected to a pump **122** and a valve such as a solenoid or pin valve." 4:39-42.

Although the specification indicates that fluid flow controller 120, or flow controller as it is sometimes referred to, is different than the controller 126, Defendant is correct that the claims and the specification contain several uses of the word "controller." Because each of these uses has a distinct meaning, I reject Plaintiff's argument that "controller" is self-explanatory and requires no additional construction. The several uses are confusing and the plain and ordinary meaning of the single word "controller" is not obvious. Thus, I agree with Defendant that the single word "controller" requires construction.

Both parties agree that "controller" is an "activation mechanism." Defendant proposes additional limiting language by construing the term "controller" as "an activation mechanism for said pump and said valve."

#### A. Claim Language

Defendant relies on the language in Claims 1 and 18 which refers to "a controller

connected to at least one of said pump and said at least one valve," 11:49-50 (Claim 1), and "a controller connected to said pump and at least one valve[.]" 14:10-11 (Claim 18). Defendant argues that the claim language would not provide for the controller being connected to the pump and the valve if it was not meant to control the pump and the valve. But, as Plaintiff points out, the claim, by providing that the controller is connected to the pump and the valve, already discloses that the controller is an activation mechanism for the pump and the valve. Adding "for said pump and said valve" to the definition of controller would be redundant and superfluous. I agree with Plaintiff that importing the adjacent claim language into the interpretation of "controller" is not required to adequately define "controller" and would be error.

Still relying on claim language, Defendant argues that because the patentee referred to a "remote controller" and a "flow controller" in Claims 16 and 17, and only to a "controller" in Claim 18, the "controller" in Claim 18 must mean something different than a "remote controller" and a "flow controller." Defendant further notes that the "remote controller" in Claim 16 controls a pump but not a valve. As a result, Defendant argues, the "controller" in Claim 18 must control both the pump and the valve because if the patentee had intended Claim 18's controller to control only the pump, it would have replicated the language of Claim 16 and directed the controller to the pump alone.

Generally speaking, the doctrine of claim differentiation is "based on the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." Starhome GmbH v. AT & T Mobility LLC, 743 F.3d 849, 857-58 (Fed. Cir. 2014) (internal quotation marks omitted). The doctrine is frequently used when construing terms in dependent and independent claims. E.g., Phillips, 415 F.3d at 1315

(under the doctrine of claim differentiation, "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"); AK Steel Corp. v. Sollac & Ugine, 344 F.3d 1234, 1242 (Fed. Cir. 2003) ("Under the doctrine of claim differentiation, dependent claims are presumed to be of narrower scope than the independent claims from which they depend."); Liebel-Flarsheim Co. v. Medrad, Inc., 358 F.3d 898, 910 (Fed. Cir. 2004) (the doctrine is "at its strongest" where the "limitation that is sought to be 'read into' an independent claim already appears in a dependent claim") (internal quotation marks omitted).

But, "there is still a presumption that two independent claims have different scope when different words or phrases are used in those claims." In re Rembrandt Techs, LP, 496 F. App'x 36, 45 (Fed. Cir. 2012) (citing Kraft Foods, Inc. v. Int'l Trading Co., 203 F.3d 1362, 1365–69 (Fed. Cir. 2000)). As explained by the Federal Circuit, "[b]eyond the independent/dependent claim scenario, this court has characterized claim differentiation more generally, *i.e.*, as the presumption that each claim in a patent has a different scope." Curtiss-Wright Flow Control Corp. v. Velan, Inc., 438 F.3d 1374, 1380 (Fed. Cir. 2006) (internal quotation marks omitted); *see also* Comark Commc'ns, Inc. v. Harris Corp., 156 F.3d 1182, 1186 (Fed. Cir. 1998) (the doctrine of claim differentiation "create[s] a presumption that each claim in a patent has a different scope.").

The Federal Circuit "has cautioned," however that "claim differentiation is a guide, not a rigid rule." Curtiss-Wright, 438 F.3d at 1381 (internal quotation marks and brackets omitted).

The court noted that

[d]ifferent claims with different words can, of course, define different subject

matter within the ambit of the invention. On the other hand, claim drafters can also use different terms to define the exact same subject matter. Indeed this court has acknowledged that two claims with different terminology can define the exact same subject matter.

Id. at 1380.

In applying the "doctrine of claim differentiation" to two independent claims," two considerations generally govern": "(1) claim differentiation takes on relevance in the context of a claim construction that would render additional, or different, language in another independent claim superfluous; and (2) claim differentiation can not broaden claims beyond their correct scope." Id. at 1381 (internal quotation marks omitted).

Claims 17 and 18 are independent claims. Thus, the doctrine of claim differentiation is not at its strongest. I agree with Defendant that Claim 16's reference to "remote controller" and Claim 17's reference to "flow controller" indicate that the reference in Claim 18 to only "controller" is to something other than a "flow controller" and a "remote controller." But, as explained above, that is why "controller" requires construction and why its meaning as "an activation mechanism" distinguishes it from other types of controllers. I disagree with Defendant that the claim language requires that the single word "controller" be construed as "activation mechanism for said pump and said valve" in order to distinguish it from "remote controller" and "flow controller" used in Claims 16 and 17.

Defendant is correct that Claim 16 sets forth a claim including a "remote controller adapted to control the operation of said pump[.]" 13:6-7. From there, Defendant argues that because the remote controller in Claim 16 controls a pump but not a valve, the controller of Claim 18 must control both the pump and the valve.

I disagree. First, accepting that the remote controller in Claim 16 is distinct from the controller in Claim 18 does not necessarily mean that they perform distinct functions. That is, that a "remote controller" controls only a pump does not inherently suggest that a "controller" controls something more than a pump. Second, and more importantly, Claim 16 depends from Claim 15, which depends from Claim 13, which depends from Claim 2, which depends from Claim 1. Thus, Claim 16 claims the following device, in relevant part:

(1) a trauma training system comprising a controller connected to at least one of said pump and said at least one valve, (Claim 1);

(2) with at least one wound site detachably in fluid communication with said valve, (Claim 2);

(3) with a manifold connected to said at least one valve which has a plurality of conduits connected to the manifold with each conduit having a connector at its free end, with said connector including a seal, (Claim 13);

(4) where the conduit is sown into a body suit or located between two layers of said body suit, (Claim 15); and

(5) with a remote controller adapted to control the operation of said pump and where in said at least one valve includes a manifold having a plurality of valves, (Claim 16).

The invention claimed in Claim 16 starts with Claim 1 which has the same controller as Claim 18. The patent claims then refine or narrow that controller to be a remote controller which is adapted to control the pump. Thus, based on the claim language alone, Claim 16 is distinguishable from the invention in Claim 18 and there is no need to apply the doctrine of claim differentiation to construe the controller in Claim 18 to expressly control both the pump and the

valve. The construction of "controller" in Claim 18 as an "activation mechanism" does not render additional or different language in independent Claim 16 superfluous. Put another way, "controller" in independent Claim 18 does not have to be further limited by the words "for said pump and said valve" in order to distinguish it from the "remote controller" claimed in Claim 16.

#### B. Other Intrinsic Evidence

Defendant argues that each depiction in the '852 Patent Figures shows the controller/activation mechanism 126 connected to both a pump and a valve. Defendant further argues that each reference in the '852 Patent specification to the controller/activation mechanism 126 indicates it is connected to both a pump and a separate valve. As a result, Defendant contends that the word "controller" must be construed an "activation mechanism for said pump and said valve."

Defendant is correct that in Figures 2A, 2B, and 5, the controller/activation mechanism 126<sup>2</sup> is shown connected to the pump and the valve. Figure 6C shows a controller/activation mechanism 126 connected to a valve, but no pump is depicted. Figure 7A shows a controller/activation mechanism 126 connected to a two-way radio but not to a pump or a valve. Figure 2C shows the controller/activation mechanism 126 connected to the pump, but not directly to the valve. Instead, it shows a programmable controller 127 joining the connection between the controller/activation mechanism 126 and the pump, and then separately connecting to the valve as well as the manifold. Finally, Figure 3 denotes the controller/activation mechanism 126 as a "remote control switch" and shows it connected to a pump but not to any of

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<sup>2</sup> In Figure 5, it is referred to as a "switch."



the several valves depicted.<sup>3</sup> None of the other Figures depict the controller/activation mechanism. As this review shows, not all of the Figures depicting the controller/activation mechanism 126 show it connected to the pump and the valve.

As to the specification, the first reference to the controller 126 is in a description of Figure 2A and identifies it as "an activation mechanism." 4:40-41. In support of its argument that every reference to the controller/activation mechanism 126 in the specification describes it as connecting to the pump and the valve, Defendant cites to only three specific descriptions. Def's Op. Claim Constr. Brief at 19 (citing 4:39-42 (description of Figure 2A)); Def.'s Resp. Claim Constr. Brief at 12 (citing 4:39-42 (description of Figure 2A); 4:56-49 (description of Figure 2B); 5:46-51 (description of Figure 3)).

I found additional references in the specification to the controller/activation mechanism 126, or to a switch 126, which appear to support Defendant's position. E.g., 6:22-29 (description of Figure 5 noting that the pump and the valve, "when present, are on when activated by the controller (or switch) **126**"); 8:2-4 (description of Figure 6C noting that the "controller **126** connects the power supply to both the valve **124** and the pump **122**").

Nonetheless, the intrinsic evidence does not require the interpretation of the term "controller" as an "activation mechanism for said pump and said valve." First, much like with

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<sup>3</sup> In contrast to the drawing in Figure 3, the specification states that Figure 3 includes a "wireless remote controller **160** for activation of the pump **122** and valve **124** through a controller (or remote control switch) **126**." 5:49-51. Thus, the designation in the drawing of Figure 3 as a "remote control switch" appears to be just a different term for the controller 126 previously described as the activation mechanism. While the written specification description indicates that the wireless remote controller activates the pump and the valve through the controller/activation mechanism, the actual drawing of Figure 3 does not show a connection between the controller/activation mechanism/remote control switch and the valves.

the plain language of the claims, the specification itself describes that the controller is connected to the pump and the valve and thus, while this may imply a certain function of the controller, it does not necessarily become a limitation of what the device is. Given that the specification describes the connection, the definition of the actual device need not to do so. Second, as the patent specification makes clear, the valve may be omitted. See 6:26 ("valve **124** may be omitted"); 8:4-7 ("[o]ne of ordinary skill in the art will appreciate based on this disclosure that the valve **124** may be omitted while still maintaining the usefulness and novelty of the system"). If the valve can be omitted, it would be improper to construe "controller" as an activation mechanism for said pump and said valve. Notwithstanding that Claim 18 discloses a valve, given that "claim terms are normally used consistently throughout the patent," Phillips, 415 F.3d at 1314, any construction incorporating the limitation that the connector must be directed to the valve would be unnecessarily narrow and exclude certain embodiments of the invention. Third, as noted above, not all the Figures depict the controller/activation mechanism 126 as connected to the pump and the valve.

### C. Extrinsic Evidence

Plaintiff cites to [www.merriam-webster.com](http://www.merriam-webster.com) for the following definition of "controller": "a device or piece of equipment used to operate a machine, vehicle, or system." Ferris June 30, 2014 Decl., Ex. M. This definition is not particularly helpful to the resolution of the dispute. Defendant cites to no extrinsic evidence in support of its proposed construction of "controller."

I agree with Plaintiff that the proper construction of "controller" is "an activation mechanism." First, the additional language proposed by Defendant is redundant and unnecessary. Second, "controller" as used in Claim 18 does not need Defendant's proposed

additional language to differentiate it from other uses of the word "controller" appearing in the claims. And, third, the Figures and specification do not demonstrate that "controller" must be narrowed beyond it being "an activation mechanism."

## II. Construction of "Connected To"

Plaintiff proposes construing the phrase "connected to" as "interacting directly or indirectly with." Jt. Prop. Claim Constr. Chart at 9. Defendant's proposal is: "electrically joined, united, or linked to." Id.

### A. Claim Language

Defendant notes that Claim 18 refers to "connected to" once and only to describe the relationship between the controller and the pump and the valve. Claim 18 also uses the phrase "in fluid communication with" three times in describing the relationships between the cavity's reservoir and the pump, between the pump and the valve, and between the valve and the wound site. Defendant argues that the claim language plainly shows that "connected to" describes a different relationship than the relationship disclosed by "in fluid communication with." From this, Defendant argues that because it is obvious that the "in fluid communication with" relationship is physical or mechanical, the "connected to" relationship has to mean something different. If it has to mean something other than physical or mechanical, it must mean electrical.

While Defendant may be correct that the phrases describe different relationships, there is nothing in the actual language of Claim 18 that compels the conclusion that the "connected to" relationship is an electrical relationship. Claim 18 does not create the "either/or" proposition advocated by Defendant. The invention requires a physical connection for the fluid to travel between the reservoir and the wound site, with connections to the pump and the valve in

between. The invention cannot function otherwise. But, there is nothing in Claim 18 to show that the patentee intended to limit "connected to" to an electrical connection just because the "in fluid communication with" relationship describes a physical connection. "Connected to" is a broad term.

This is made clear by looking at Claim 19 which depends from Claim 18:

**19.** The trauma training system according to claim **18**, wherein said at least one wound site includes:

- a first wound site conduit connected to said valve;
- a first wound site connected to said first wound site conduit;
- a second wound site conduit connected to said valve; and
- a second wound site connected to said second wound site conduit.

14:15-21.

The patentee, having already disclosed that the wound site is "in fluid communication" with the valve in Claim 18, more specifically delineates here that the "fluid communication" claimed in Claim 18 is accomplished by a conduit connected to the valve and the wound site. Given the nature of the invention, this has to mean a physical attachment of the conduit to the valve and the wound site to allow the "fluid communication" disclosed in Claim 18 to occur. Thus, the patentee uses the term "connected to" to mean a physical attachment or connection of conduit. The fact that the patentee used "in fluid communication with" as well as "connected to" in Claim 18 does not mean that a physical or mechanical connection is represented only by the phrase "in fluid communication with." As Claim 19 shows, "connected to" encompasses a physical or mechanical connection.

Defendant next points to Claim 4 which claims the trauma training system according to Claim 2, "wherein said at least one valve includes a solenoid electrically connected to said

controller." 11:65-67. Defendant argues that this, the only claim that describes the connection between the controller and the valve, makes clear that the connection is electrical.

I disagree. Claim 4 depends from Claim 2 which depends from Claim 1. Thus, the claim starts with the reservoir, the pump, and the valve being "in fluid communication" with each other and the controller "connected to" the pump and the valve. 11:45-50. Then, in Claim 2, a wound site is added and it is "in fluid communication" with the valve "wherein fluid is provided to said wound site to simulate a hemorrhage." 11:55-57. In Claim 4, the valve previously claimed in Claim 1 is said to "include[] a solenoid electrically connected to said controller." 11:66-67.

The fact that the patentee added the word "electrically" indicates that Claim 1's previous description of that connection between the valve and the controller was not necessarily electrical. As explained above, under the doctrine of claim differentiation, the presence in the dependent claim of a particular limitation, such as "electrically," gives rise to the presumption that the limitation in question is not present in the independent claim. Phillips, 415 F.3d at 1315. Similarly, the fact that the patentee added that the valve was a solenoid valve means that the valve previously delineated in Claim 1 did not have to be solenoid. Because Claim 4 depends from Claims 2 and 1, it includes the distinguishing limitations of an electrical connection and the use of a solenoid valve. Thus, the "connected to" phrase in Claim 1, which is nearly identical to the "connected to" phrase in Claim 18, is not limited to an electrical connection.

The claim language does not support Defendant's proposed inclusion of the word "electrically."

#### B. Other Intrinsic Evidence

Defendant notes that several of the '852 Patent Figures show solid lines as "connections"

between the reservoir and flow controller, between the flow controller and the wound sites, and between the controller/activation mechanism 126 and the pump and the valve. See Figs. 1A, 1B, 2A, 2B. But, these solid lines reveal nothing about the nature of the connection.

However, in Figures 2A, 2B, and 2C, the controller/activation mechanism 126 is connected to a power source, and in Figures 3 and 5, the "remote control switch," or "switch," both designated as 126, are shown connected to a power supply. Defendant argues that based on these Figures, the patentee disclosed that the controller/activation mechanism 126 serves as an activation mechanism for the pump and the valve by directing electrical power from the power supply to the pump and the valve. Defendant also points to Figures 6B and 6C to argue that they "clearly show an electrical connection between the power supply (130), the controller (126) and the valve (124)[.]" Def.'s Op. Claim Constr. Brief at 25. The depictions are not as clear as Defendant characterizes. Figure 6B depicts only the pump, but not the power supply, the controller/activation mechanism, or the valve. While it does show what appear to be wires coming out of the pump, none of the other devices are present. Figure 6C shows the controller/activation mechanism 126 connected to a power supply as well as a valve, by what appear to be wires, but the connections are not identified. Thus, Figures 6B and 6C are ambiguous.

Next, Defendant relies on the specification, and in particular, the following passage describing Figure 2A:

FIG 2A illustrates an exemplary embodiment of the flow controller **120A** having a power supply **130** and a controller (or activation mechanism) **126** connected to a pump **122** and a valve **124** such as a solenoid or pin valve. The controller **126** may include a manually activated component such as, for example, a switch, button, or dial. The controller **126** may also be activated by a remote control **160**,

which is exemplary illustrated, for example, in FIG. 3, which signals a switch or adjustable controller and allows the simulation to be controlled externally of the system by, for example, a trainer. The variable adjustment of the power supplied to the pump **122** allows the fluid volume to be controlled to provide varying amounts of fake blood flow during a particular simulation. The adjustable power supplied to the pump **122** may be provided by a variable adjuster such as a rheostat. The power may also be adjustably supplied to provide a pulsating flow to the simulated wound site(s) that simulates pumped blood.

4:39-55.

Defendant argues that this passage shows that the scope of the invention is one of a controller electronically connected to the pump and also to the valve. While the specification says that the controller may include switches and dials, Defendant contends that those switches, buttons, or dials activate or regulate the controller but do not disclose a mechanical connection between the controller and the pump or between the controller and the valve. Thus, while the controller may be activated mechanically or physically by a switch, button, or dial, the connection from the controller to the devices it connects to is electrical.

Based on the Figures and the description, Defendant argues that the intrinsic evidence clearly establishes an electrical connection between the controller and the pump and the valve. There is never a reference to a hand pump, for example, or any other method, other than electrically, by which the pump is activated. Although some of the Figures support Defendant's position, and the quoted portion of the specification relied on by Defendant also supports Defendant's position, other references in the specification instruct that the term "connected to" should not be limited to an electrical connection.

In describing Figures 3 and 4, the specification discusses the flow controller's connection to a pair of wound sites. The illustration in Figure 3, the specification explains, includes a T-

connector or Y-connector or manifold, connected to the valve for providing two fluid streams to the wound sites. 5:22-25. Figure 4 illustrates the fluid flow controller connected to the conduit for moving the fake blood to the abdomen wound site on a mannequin. 5:25-28. The conduit for each wound site is connected to the T-connector through needle valves which control the amount of fluid sent to the two respective wound sites. 5:28-32. Importantly, the specification then states that "[n]eedle valves, . . . although illustrated as being manual valves may be electrically controlled." 5:32-34. It goes on to say that "[a]lthough needle valves are illustrated in FIG 4, these valves can be any valve that allows for fluid volume control including electrically controlled valves, which have the added benefit of fluid flow adjustment (via a remote controller 160) during the course of the simulation between the two wound sites." 5:40-45.

In describing the flow controller in Figure 5, the specification provides that

[t]he flow controller **120E** includes a plurality of fluid flow paths extending out from the manifold **128** to be able to connect to a plurality of body parts and provide fluid to any wound sites that might be present on those body parts. Each fluid flow path includes a respective valve **1241-1246** that connect either directly to the manifold **128** or through a conduit **150**. Each valve **1241-1246** is independently controllable by individual switches **S1-S6** or a control matrix for sending control signals to the respective valves. The switches **S1-S6** complete the electrical circuit between the respective valve **1241-1246** and the power supply **130**. Alternatively, the valves **1241-1246** may be manually controlled instead of electrically controlled. The valves **1241-1246** are similar to the various valves discussed above and as such a variety of valve types may be used.

6:30-44 (underlining emphasis added).

These parts of the specification undermine Defendant's argument because they expressly refer to the manual control of valves. Defendant acknowledges that other valves are described in the '852 Patent and shown in the Figures, but Defendant contends that they are described as



"manual 'needle valves' and simply not controllable by the controller." Def.'s Resp. Claim Constr. Brief at 15 (citing 5:28-41). As I understand Defendant's argument, the manually operated valves are independent of and not connected to a controller. But, once the invention discloses a valve connected to a controller, it is an electrical connection. Thus, when construing "connected to" in Claim 18, the description of the controller connected to the pump and the valve discloses an electrical connection.

Defendant's argument overlooks that there are two references to the manual adjustment of valves, one of which is not to the "needle valves" Defendant attempts to distinguish. See 6:30-44 (quoted above). Additionally, given the many references to "connected to" in the '852 Patent claims, including ones which clearly show a physical attachment, it would be improper to include a limitation of "electrical" in defining "connected to" because the construction should be applied consistently throughout the patent claims. Phillips, 415 F.3d at 1314.

### C. Extrinsic Evidence

Plaintiff cites to [www.merriam-webster.com](http://www.merriam-webster.com) which Plaintiff states defines "connect" as "to place or establish in a relationship." Ferris May 30, 2014 Decl., Ex. 9. But, that source lists several other definitions as primary, including: (1) "to join or fasten together usually by something intervening"; (2) "to join (two or more things) together"; (3) "to join with or become joined to something else"; and (4) "to think of (something or someone) as being related to or involved with another person, thing, event or idea." Id.

Plaintiff also cites to the American Heritage dictionary to suggest that the proper definition of "connected" is "related; associated." But, the primary definition in that source is "[j]oined or fastened together." Ferris May 30, 2014 Decl., Ex. 2 at 4. That source also defines

"connect," as opposed to "connected," as "[t]o join or fasten together." Id.

Defendant cites to dictionary.com which defines "connect" as "to join, link, or fasten together; unite or bind[.]" www.dictionary.com.

I construe "connected to" to mean "joined, united, or linked to." For the reasons explained above, the claim language supports Plaintiff's position that "connected to" should not be limited to an electrical connection. While many references in the specification and the Figures suggest that the connection between the controller and the pump and the valve is electrical, the specification expressly discloses manually adjustable valves. Adopting Defendant's limitation of electrical is an improper "reading in" of the limitation from various exemplary embodiments and the Figures because in the end, the specification and the Figures do not require that "connected to" be limited to an electrical connection.

While I omit "electrical," I reject Plaintiff's proposal of "interacting directly or indirectly with." I agree with Defendant that Plaintiff's proposal is unnecessarily broad and vague. Moreover, it is not supported by the dictionary sources which provide primary definitions closer to Defendant's proposal.

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CONCLUSION

The entire claim phrase of "controller connected to" is properly construed as "an activation mechanism joined, united, or linked to."

IT IS SO ORDERED.

Dated this 3 day of Sept, 2014

  
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Marco A. Hernandez  
United States District Judge