IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civ. No. 10-39-SLR
	)	
BOSTON SCIENTIFIC CORPORATION and BOSTON SCIENTIFIC SCIMED, INC.,	)	
	)	
Defendants.	)	

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MEMORANDUM OPINION

Dated: June 19, 2012
Wilmington, Delaware

ROBINSON, District Judge

I. INTRODUCTION

Cordis Corporation ("Cordis") filed this action on January 15, 2010, alleging that Boston Scientific Corporation and Boston Scientific Scimed, Inc.'s ("BSC's") sales of Promus drug eluting stents ("Promus" stents) infringe the U.S. Patent Nos. 6,086,604 ("the '604 patent"), 6,547,817 ("the '817 patent"), and 6,716,240 ("the '240 patent") (collectively, the "Fischell patents"). (D.I. 1) BSC answered the complaint on March 11, 2010, asserting numerous defenses, including invalidity and noninfringement of the asserted claims, as well as the defense that its sales of Promus stents are authorized. (D.I. 8.) The parties have completed fact and expert discovery and claim construction briefing. Currently before the court are three summary judgment motions: (1) BSC's motion for summary judgment that the Fischell patents are invalid and that its Promus stent sales are authorized sales (D.I. 205); (2) Cordis's cross-motion on these issues (D.I. 225); and (3) BSC's motion for summary judgment of noninfringement (D.I. 208). A hearing on claim construction took place on May 9, 2012; trial is scheduled to commence on July 30, 2012.

II. BACKGROUND

A. The Fischell Patents

The '817 patent was filed on June 16, 2000, and issued on April 15, 2003. It is ostensibly a continuation of the '604 patent, which was filed on March 5, 1999 and issued on July 11, 2000. The '240 patent also issued from an application claiming priority to the '604 patent. The '240 patent was filed as U.S. Patent Application No. 10/345,531 on January 16, 2003, claiming priority to U.S. Patent Application No.

09/596,074, which application in turn was a continuation of the '604 patent. The '604 patent was filed as U.S. Patent Application No. 09/263,518 on March 5, 1999, as a continuation of United States Patent Application No. 08/864,221, which itself was filed on May 28, 1997 and issued as U.S. Patent No. 5,879,370 ("the '370 patent") on March 9, 1999. The '370 patent was a continuation of U.S. Patent Application No. 08/202,128, filed on February 25, 1994, and issuing as U.S. Patent No. 5,643,312 ("the '312 patent") on July 1, 1997. The specifications of the '312, '370, '604, '817, and '240 patents are identical for all relevant purposes; the only differences are: (1) the title of the '312 patent, which is "Stent Having a Multiplicity of Closed Circular Structures;" (2) the Abstracts; (3) the cited prior art; and (4) the recitation of related patents.

Cordis asserts claims 1, 3, 6, 9, 11 and 13-14 of the '817 patent against BSC in this case. Claim 1 of the '817 is the independent claim from which the others depend, and requires:

> A generally cylindrical stent for delivery to a coronary artery, said stent having a first pre-deployment diameter and a second deployed diameter, said stent having a circumference, and a longitudinal axis, said stent having sufficient flexibility to permit percutaneous delivery to a curved coronary artery; said stent in its first diameter comprising:
>
> at least two longitudinally spaced apart circumferential rings having closed ends, each of said circumferential rings defining a portion of the circumference of the stent, each of said circumferential rings having at least two peak segments and at least two valley segments; and
>
> at least one longitudinally extending connector having a first end portion and a second end portion, said first end portion being fixedly connected to a first of said circumferential rings and said second end portion being fixedly connected to a circumferential ring adjacent to said first circumferential ring, said connector having at least one circumferentially extending turn back portion between its first and second end portions that can expand or contract in length as measured by the straight line distance between its first and second end portions, while being passed through a curved coronary artery.

Cordis also asserts that BSC infringes claim 1 of the '604 patent, which reads as follows:

> 1. A predeployment stent adapted for placement in the vessels of the human body, said stent comprising:
>
> a thin-walled metal cylinder having a longitudinal axis, a proximal end and a distal end;
>
> a multiplicity of continuous closed circumferential zig-zag segments, the zig-zag segments being joined one to the other by one or more longitudinals extending in a substantially longitudinal direction, at least a portion of at least one of said longitudinals having an undulating shape;
>
> a first zig-zag segment located at the proximal end of the stent and a second zig-zag segment located at the distal end of the stent;
>
> the first and second zig-zag segments being formed at least in part from a radiopaque metal to provide fluoroscopic indication of the stent position within the vessel.

Finally, claims 19, 21, 25, 26, 27, 31, 32, 34, 36 and 58-64 of the '240 patent are at issue. The four independent claims within this group are reproduced below.

> 19. A stent having a longitudinal axis, comprising: at least two longitudinal structures each having at least one straight section and at least one undulating section, with each said straight section being joined to said at least one undulating section, the straight sections of all of the longitudinal structures being generally parallel to the longitudinal axis of the stent, the undulating section of each longitudinal structure extending generally in a circumferential direction and being of a generally curved shape so as to allow each undulating longitudinal structure to readily change length during insertion of the stent structure into a curved vessel of a human body.
>
> 21. A generally cylindrical stent having a circumference and a longitudinal axis, said stent having sufficient flexibility to permit said stent to be delivered percutaneously to curved coronary arteries, comprising:
>
> a plurality of circumferential elements, each of said circumferential elements extending around the circumference of the stent, and a plurality of connecting elements, each of said connecting elements having a first end and a second end, with the first end being fixedly connected to a first of said circumferential elements and the second end being fixedly connected to a circumferential

element adjacent to said first circumferential element, where at least one of said connecting elements has an undulating section that can expand and contract in length while being passed through a curved coronary artery.

31. A generally cylindrical stent having a circumference and a longitudinal axis, said stent having sufficient flexibility to permit said stent to be delivered percutaneously to curved coronary arteries, comprising: a plurality of circumferential elements, each of said circumferential elements extending around the circumference of the stent, and a plurality of connecting elements, each of said connecting elements having a first end and a second end, with the first end being fixedly connected to a first of said circumferential elements and the second end being fixedly connected to a circumferential element adjacent to said first circumferential element, whereby a line drawn from the first end of at least one connecting element to the second end of said at least one connecting element is substantially parallel to the stent's longitudinal axis and where at least one of said connecting elements has an undulating section that can expand and contract in length while being passed through a curved coronary artery.

58. A generally cylindrical stent having a circumference and a longitudinal axis, said stent having sufficient flexibility to permit said stent to be delivered percutaneously to curved coronary arteries, comprising: a plurality of circumferential elements, each of said circumferential elements extending around the circumference of the stent, and a plurality of connecting elements, each of said connecting elements having a first end and a second end, with the first end being fixedly connected to a first of said circumferential elements and the second end being fixedly connected to a circumferential element adjacent to said first circumferential element, where at least two of said connecting elements connect adjacent circumferential elements and where at least one of said connecting elements has an undulating section that can expand and contract in length while being passed through a curved coronary artery.

B. Prior Litigation

The '312 and '370 patents were the subject of prior litigation in this court and in the Federal Circuit dating back to 1997, involving the same captioned parties. *See Cordis Corp. v. Medtronic AVE, Inc. et al.*, 194 F. Supp. 2d 323 (D. Del. 2002) (hereinafter, "*Cordis I*"); *affirmed in part by Cordis Corp. v. Boston Scientific Corp.*, 188 Fed. Appx. 984 (Fed. Cir. 2006) (hereinafter, "*Cordis II*"); *Cordis Corp. v. Boston Scientific Corp.*, 641 F. Supp. 2d 353 (D. Del. 2009) (hereinafter, "*Cordis III*"); *affirmed*

by Cordis Corp. v. Boston Scientific Corp., 658 F.3d 1347 (Fed. Cir. 2011) (hereinafter, "*Cordis IV*").

Prior to the jury trial in *Cordis I*, the court construed several disputed claim terms in the '312 and '370 patents, including "undulating," which was construed as "[r]ising and falling in waves, thus having at least a crest and a trough." *Cordis I*, 194 F. Supp. 2d at 336. The jury found that BSC's NIR coronary stent did not infringe asserted claim 21 of the '312 patent, but that the NIR stent did infringe claims 25 and 26 of the '370 patent; the latter (claim 26) was also found invalid. *Id.* at 339. On BSC's motions for judgment as a matter of law ("JMOL"), the court reversed the jury and held that the NIR stent did not infringe claims 25 or 26 of the '370 patent. *Id.* at 354-55. In so doing, the court noted that "[t]he use of the plural 'waves' [in its construction of 'undulating'] implies a change in direction, as suggested by figure 8 of the '370 patent[.]" *Id.* at 354. The court also stated that it "did not include the 'change in direction' language in the claim construction because neither party suggested it was necessary, as it was contemplated under BSC's definition which was embraced by the court." *Id.* A bench trial was later held whereafter the court found both patents unenforceable due to inequitable conduct. *Id.* at 368.

Both parties appealed. In *Cordis II*, the Federal Circuit remanded for additional findings regarding the intent to deceive underpinning of inequitable conduct, and did not reach infringement. *Cordis II*, 188 Fed. Appx. at 985-86. On remand, the court made further findings and concluded that the '312 and '370 patents were not unenforceable due to inequitable conduct. *Cordis III*, 641 F. Supp. 2d at 358. The court denied BSC's

subsequent motion for reconsideration,[1] and the parties renewed their remaining arguments on appeal.

It was not until *Cordis IV* that the court's construction of "undulating" was fully vetted. The Federal Circuit declined to embrace Cordis's assertion that BSC had "improperly urged a narrower and erroneous claim construction" on the court on its JMOL motions, stating that "nothing prevented the district court from clarifying its previous construction of the term 'undulating'[.]" *Cordis IV*, 658 F.3d at 1355. Because BSC did not object to the court's jury instruction including the "undulating" definition, and because Cordis did not challenge the construction of "undulating" as requiring "at least a crest and a trough" on appeal, the Federal Circuit did not "review the construction itself, [but] instead focus[ed] on what that construction means." *Id.* at 1356. In this regard, the Court stated that

> it is apparent that the construction requires multiple "waves." Accordingly, the terms "crest" and "trough," as used in [the] district court's claim construction, implicate changes of direction, with the curve extending beyond the point of inflection. The district court's post-verdict elaboration on this point only clarified what was inherent in the construction. Doing so was not error; it merely made plain what, as we detail below, should have been obvious to the jury.

Id. (internal citation omitted). In view of the fact that the applicants traversed a prior art rejection on the basis that the cited prior art, disclosing arced arms, lacked an "undulating shape or contour," the Federal Circuit also made clear that "Cordis's suggestion that a single curve can satisfy the 'undulating' limitation of the asserted claims [is] thereby foreclosed." *Id.* at 1357 (This "remains true whether Cordis couches

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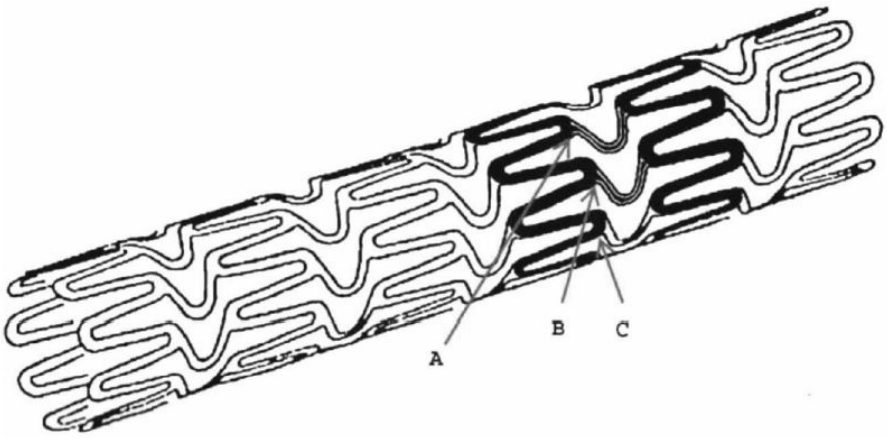
[1] *See Cordis Corp. v. Boston Scientific Corp.*, Civ. No. 98-197, 2010 WL 1286424 (D. Del. Mar. 31, 2010).

its argument in terms of claim differentiation, the phrase 'comprising a 'U' shaped curve,' or dictionary entries").

Applying the court's construction, the Federal Circuit affirmed the grant of JMOL that BSC did not infringe claim 25 of the '370 patent. *Id.* at 1358. For reference, the court reproduces below the Federal Circuit's depiction of the non-infringing NIR stent, which includes "so-called C-loops stacked circumferentially about the stent body, with longitudinal members known as U-loops in between." *Id.* That is, the NIR's "U-loops [ ] merely level out, and they lack the change in direction required for literal infringement."



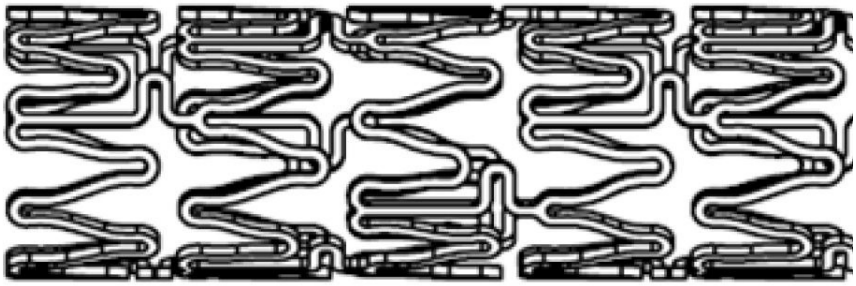
Id.[2]

C. The Current Litigation

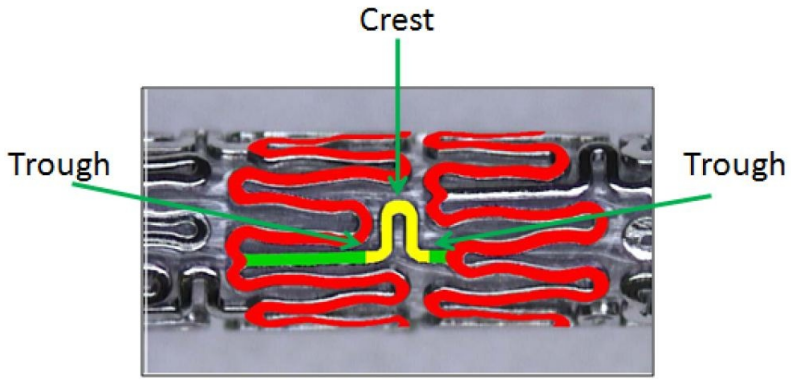
The present action alleging infringement of the '604, '817 and '240 patents (children of the '370 patent) by Promus stents was initiated by Cordis in January 2010, prior to the final appeal to the Federal Circuit or the issuance of *Cordis IV* on September

[2]The "A," "B," and "C" labels on the diagram mark the origination of the U-shaped connectors; they were relevant to the Federal Circuit's analysis, but not to the issues at bar.

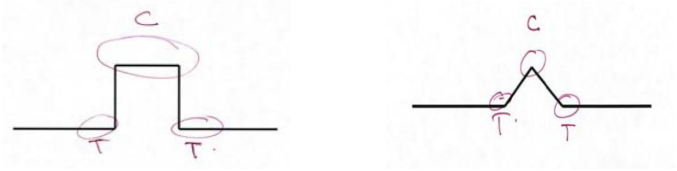
28, 2011. The architecture of the Promus stent is depicted below.



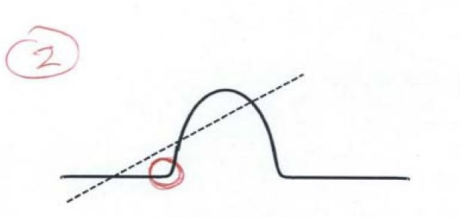
(D.I. 180 at 9) Prior to the disposition of *Cordis IV*, Cordis's expert, Dr. Nigel Buller ("Buller"), opined that the Promus stent fulfills the "undulating" limitation of the claims because its U-shaped connectors contained one "crest" and two "troughs," as illustrated below.



(D.I. 181 at ex.6) According to Buller, virtually any indentation in an otherwise-straight connector could suffice as an "undulation," such as the following.

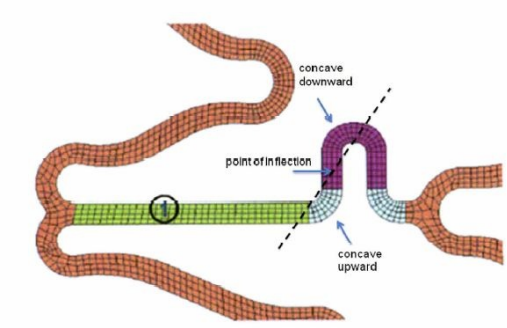


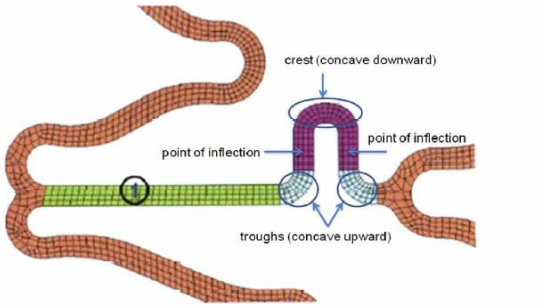
(D.I. 181, ex. 8) Buller now acknowledges that the foregoing is untenable in view of *Cordis IV*. (D.I. 224, ex. 4 at 325:11-326:2, 329:3-10) Buller opines, however, that a shape (such as that depicted below) can be "undulating" where one can discern some degree of curvature at the base, as well as a change of direction at a "point of inflection" (through which a dotted line has been drawn):



(D.I. 224, ex. 4 at 364:6-365:3, 367:20-368:17; D.I. 223 at 8[3])

Specifically, Buller opines that the Promus stent infringes because it contains a section comprising "waves" vis-a-vis a point of inflection: a first trough that is concave upward and changing direction from rightward to upward; a crest that is concave downward; and a second trough that is concave upward and changing direction from downward to rightward.





[3]This graphic, cited in BSC's noninfringement papers, is said to correlate to Buller deposition exhibit F, which does not appear to be separately provided. Cordis does not contest the accuracy of BSC's depictions in its responsive paper.

(D.I. 188, ex. 18 at A165-66, ¶¶ 15-20)

III. STANDARD OF REVIEW

A court shall grant summary judgment only if "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." Fed. R. Civ. P. 56©. The moving party bears the burden of proving that no genuine issue of material fact exists. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 n.10 (1986). "Facts that could alter the outcome are 'material,' and disputes are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct." *Horowitz v. Fed. Kemper Life Assurance Co.*, 57 F.3d 300, 302 n.1 (3d Cir. 1995) (internal citations omitted). If the moving party has demonstrated an absence of material fact, the nonmoving party then "must come forward with 'specific facts showing that there is a genuine issue for trial.'" *Matsushita*, 475 U.S. at 587 (quoting Fed. R. Civ. P. 56(e)). The court will "view the underlying facts and all reasonable inferences therefrom in the light most favorable to the party opposing the motion." *Pa. Coal Ass'n v. Babbitt*, 63 F.3d 231, 236 (3d Cir. 1995). The mere existence of some evidence in support of the nonmoving party, however, will not be sufficient for denial of a motion for summary judgment; there must be enough evidence to enable a jury reasonably to find for the nonmoving party on that issue. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986). If the nonmoving party fails to make a sufficient showing on an essential element of its case with respect to which it has the burden of proof, the moving party is entitled to judgment as a matter of law. *See*

Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986).

IV. DISCUSSION

A. Authorized Sales

1. Background

Promus stents are manufactured by Abbott Laboratories ("Abbott") for resale by BSC. In June 2001, Cordis entered into a license agreement with Abbott ("the License"). (D.I. 207, ex. 4) Article II of the License, titled "Rights Granted," provides that:

> Cordis hereby grants to Abbott and its Affiliates, subject to the terms and conditions set forth herein, a worldwide, non-exclusive right and license, without the right to sublicense, under Patent Rights to make, have made, use, offer for sale, sell and import Products.

(*Id.*) As used in the License:

> "Patent Rights" shall mean the patents listed in Schedule 1.14, and all substitutions, extensions, reissues, renewal, reexaminations, divisions, continuations or continuing applications thereof, and all foreign counterparts of the foregoing.

(*Id.* at Art. I § 1.14) Schedule 1.14 includes the '312, '370 and '604 Fischell patents (also termed the "Fischell Patent Family"). (*Id.*)

The License is subject to only a few restrictions. One of these restrictions applies in the event that Abbott undergoes a "merger" or "consolidation:"

> In the event of the merger or consolidation of Abbott with a Major Competitor, the licenses granted herein shall not extend to the business of such Major Competitor without the prior written approval of Cordis, which approval may be withheld without reason.

(*Id.* at Art. X, § 10.4) For purposes of this clause:

> "Major Competitor" shall mean the divisions or businesses of the following

> entities or their Affiliates, or any successor in interest to substantially all of the assets and business of those entities or their Affiliates: Boston Scientific Corporation (including Scimed Life Systems, Inc.); Guidant, Inc. ["Guidant"] (including Advanced Cardiovascular Systems, Inc. ["ACS"]); Medinol Ltd.; and Medtronic, Inc. (including Medtronic AVE).

(*Id.* at Art. I, § 1.9) Relevant to the present dispute are the meanings of the terms "merger" and "consolidation," which are not defined in the License. Finally, the License contains a standard integration clause, and provides that Delaware law shall govern the construction and interpretation of all license terms and provisions. (*Id.* at Art. X, §§ 10.1, 10.8)

In January 2006, five years after Cordis and Abbott entered into the License, BSC entered into merger negotiations with Guidant. In order to effectuate a merger with Guidant, BSC found it necessary to sell some of Guidant's assets. (D.I. 228, ex. 10 at BSC-P0112433) On January 8, 2006, BSC entered into a transaction agreement whereby it sold Guidant's cardiology division, ACS, to Abbott. (*Id.*) In exchange for this sale, Abbott agreed to supply BSC with drug eluting stents for a period of years. (*Id.* at § 5.07 et seq., BSC-P0112447) Among the assets acquired from Guidant, Abbott acquired the assets of ACS and the Promus stent technology. As a consequence, Abbott supplies drug eluting stents to BSC, which stents are re-labeled (as Promus-branded stents) prior to sale. (*Id.*)

To effect the acquisition, Abbott acquired the stock of ACS, as well as certain assets of other Guidant subsidiaries. (*Id.* at § 2.01, BSC-P0112438; *Id.* at ex. 9, 99:3-9, 138:23-139:5) After the acquisition was complete, Abbott owned and continued to operate ACS as a wholly owned subsidiary (later renamed "Abbott Cardiovascular Systems, Inc."). (D.I. 206 at 16; D.I. 226 at 19) To date, neither Cordis nor Abbott have

terminated the License. (D.I. 206 at 18; D.I. 207, ex. 5 at 81:13-20, 81:25-82:7, 83:15-18)

2. Contract interpretation principles

Construction of contract language is a question of law. *See Rhone-Poulenc Basic Chems. Co. v. Am. Motorists Ins. Co.*, 616 A.2d 1192, 1195 (Del. 1992). The primary consideration in interpreting a contract is to "attempt to fulfill, to the extent possible, the reasonable shared expectations of the parties at the time they contracted." *See Comrie v. Enterasys Networks, Inc.*, 837 A.2d 1, 13 (Del. Ch. 2003). In ascertaining intent, Delaware courts adhere to the "objective" theory of contracts. *See Haft v. Haft*, 671 A.2d 413, 417 (Del. Ch. 1995). Under this approach, a contract's "construction should be that which would be understood by an objective reasonable third party." *R.E. Haight & Assocs. v. W.B. Venables & Sons, Inc.*, Civ. No. 94C-11-023, 1996 WL 658969, at *3 (Del. Super. Oct. 30, 1996) *(quoting Demetree v. Commonwealth Trust Co.*, Civ. No. 14354, 1996 WL 494910, at *4 (Del. Ch. Aug. 27, 1996)). Thus,

> [w]here parties have entered into an unambiguous integrated written contract, the contract's construction should be that which would be understood by an objective reasonable third party. An inquiry into the subjective unexpressed intent or understanding of the individual parties [to the contract] is neither necessary nor appropriate where the words of the contract are sufficiently clear to prevent reasonable persons from disagreeing as to their meaning.

Demetree, 1996 WL 494910, at *4 (citations omitted); *accord Eagle Indus., Inc. v. DeVilbiss Health Care, Inc.*, 702 A.2d 1228, 1232 (Del. 1997) ("Contract terms themselves will be controlling when they establish the parties' common meaning so that a reasonable person in the position of either party would have no expectations

inconsistent with the contract language."). The court, therefore, must determine whether the contractual language in dispute, when read in the context of the entire contract, is ambiguous.

Ambiguity exists only when a contractual provision is "reasonably or fairly susceptible of different interpretations or may have two or more different meanings." *Rhone-Poulenc*, 616 A.2d at 1196; *accord SI Mgmt. L.P. v. Wininger*, 707 A.2d 37, 42 (Del. 1998). Contractual language "is not rendered ambiguous simply because the parties do not agree upon its proper construction." *Id.*; *see also City Investing Co. Liquidating Trust v. Cont'l Cas. Co.*, 624 A.2d 1191, 1198 (Del. 1993) (finding contract language is not ambiguous "simply because the parties in litigation differ concerning its meaning."). However, inconsistent contractual provisions may create ambiguity in a contract. *Fraternal Order of Police v. City of Fairmont*, 468 S.E.2d 712, 717 (W. Va. 1996) ("Contract language usually is considered ambiguous where an agreement's terms are inconsistent on their face . . . ."); *Weber v. Tillman*, 913 P.2d 84, 96 (Kan. 1996) ("To be ambiguous, a contract must contain provisions or language of doubtful or conflicting meaning, as gleaned from a natural and reasonable interpretation of its language."); *Franklin v. White Egret Condo., Inc.*, 358 So. 2d 1084 (Fla. Dist. Ct. App. 1977), *aff'd*, 379 So. 2d 346 (Fla. 1979) (finding "two sections [of a disputed contract] are inconsistent, and inherently ambiguous."). When a contract is ambiguous, it raises "factual issues requiring consideration of extrinsic evidence to determine the intended meaning of the provision in light of the expectations of the contracting parties." *Eagle Indus., Inc. v. DeVilbiss Health Care, Inc.*, 702 A.2d 1228, 1230 (Del. 1997). If "the court finds that a contract is ambiguous and that extrinsic evidence is undisputed, then

the interpretation of the contract remains a question of law for the court to decide." *In re Columbia Gas Sys.*, 50 F.3d 233 (3d Cir. 1995).

3. Discussion

BSC moves for summary judgment that Abbott's sales of stents to BSC are authorized and exhaust Cordis's patent rights. (D.I. 206 at 18-22) Cordis does not dispute that Abbott's acquisition of ACS was "not a statutory merger or statutory consolidation meeting all the requirements of Delaware law." (D.I. 226 at 19-20) Cordis insists, however, that applying Delaware law in defining "merger" and "consolidation" defeats the intent of the parties to the License, and proposes applying the broader Black's Law Dictionary definitions of each term.[4] Under these broader definitions, Cordis argues that Abbott's acquisition of the Guidant cardiovascular division amounts to a "merger" or "consolidation" with a Major Competitor. Therefore, Abbott was not licensed to apply the disputed patents to the Promus technology, the subsequent sale of such products to BSC was not authorized, and the doctrine of patent exhaustion does not apply. (D.I. 226)

The court declines Cordis's suggestion and relies upon Delaware law to construe, interpret and govern the meaning of the terms "merger" and "consolidation" as prescribed by section 10.8 of the License. (D.I. 207 at ex. 4, Art. X § 10.8) Under Delaware law, a "merger" occurs when "[a]ny 2 or more corporations . . . merge into a single corporation, which may be any 1 of the constituent corporations[.]" 8 Del. C. §

[4]According to Black's, a "merger" is simply "the act or an instance of combining or uniting," and "consolidation" is also "the act or process of uniting" or "the state of being united." BLACK'S LAW DICTIONARY 351, 1078 (9th ed. 2009).

251. A "consolidation" occurs when "[a]ny 2 or more corporations . . . consolidate into a new corporation formed by the consolidation[.]" *Id.* Every intended "merger" or "consolidation" must be entered "pursuant to an agreement of merger or consolidation, as the case may be, complying and approved in accordance with this section." *Id.*

In the case at bar, there is no question that Abbott did not "merge" or "consolidate" with ACS, or any other division of Guidant. Abbott is a registered Illinois corporation and has been since 1900. (D.I. 207, ex. 8) ACS is incorporated in California and has been since 1978. (*Id.*, ex. 7) Abbott and ACS remain distinct corporate entities. Neither company has subsumed the other's corporate registration. Furthermore, there is no evidence that Abbott and ACS ever entered into an agreement of "merger" or "consolidation." Under Delaware law, Abbott's purchase of Guidant's assets (including its ACS division) does not effect a "merger" or "consolidation" with those assets.

The language in the License is not ambiguous such that resort to other evidence is necessary. The License shall not extend to the business of an enumerated Major Competitor only "[i]n the event of the merger or consolidation of Abbott with a Major Competitor;" no other circumstances are delineated. (*Id.*, ex. 4 at Art. X § 10.4) Delaware law is the governing law provision, which applies to the interpretation of undefined terms within the License (such as "merger" and "consolidation"). (*Id.* at Art. X § 10.8) Applying the Delaware definitions of "merger" and "consolidation" to the terms as used in the License does not result in any intra-contract contradiction. Moreover, the fact that Guidant was a Major Competitor as contemplated under the License does not negate the "[i]n the event of the merger or consolidation of Abbott" language defining

the precise circumstances under which the License could be voided. The court will not hold contractual language "ambiguous simply because the parties do not agree upon its proper construction."[5] *Rhone-Poulenc*, 616 A.2d at 1196.

In view of the fact that there was no "merger" or "consolidation" with ACS or any other Major Competitor under the terms of the License, Abbott's rights to the Fischell patents were not extinguished, and Abbott is authorized to sell Promus stents to BSC. The "longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item." *Quanta Computer, Inc. v. LG Elec., Inc.*, 553 U.S. 617, 625 (2008) (preventing a patent holder from asserting its patent rights against products purchased from a licensed third party). Because BSC acquired products relying upon the Fischell patents from a licensed third party (Abbott), the doctrine of patent exhaustion bars Cordis from asserting its patent rights against BSC.[6]

[5]Cordis, a sophisticated commercial party, could have negotiated specific definitions of "merger" and "consolidation" to be included with the other defined terms in Article I of the license, or the inclusion of additional circumstances such as the purchase of assets from a Major Competitor.

[6]The court notes Cordis's assertions that it has never collected royalties from Abbott for its sales of Promus stents to BSC. (D.I. 226 at 22-23) Abbott is not a party to this suit, and has not had the opportunity to make a record with respect to that issue. The court makes no findings on this point.

B. Validity of the '817 Patent

The court was not presented with a summary judgment motion regarding the validity of the '817 patent under 35 U.S.C. § 112; it has been asked, in the context of the parties' claim construction and anticipation disputes, to resolve the issue of whether claim 1 of the '817 patent[7] has priority to the February 25, 1994 priority date of the original application. BSC argues that the asserted claims of the '817 patent are not entitled to the February 24, 1994 priority date of the earliest Fischell patent because the "circumferentially extending turn back portion" is not disclosed or enabled within the original specification; it was classic "new matter." (D.I. 180 at 17-18; D.I. 193 at 7-8; D.I. 206 at 12) According to BSC, "[t]he real dispute is whether this phrase can be interpreted more broadly than 'undulating' while at the same time enjoying the February 25, 1994 priority date of the original application." (D.I. 193 at 7)

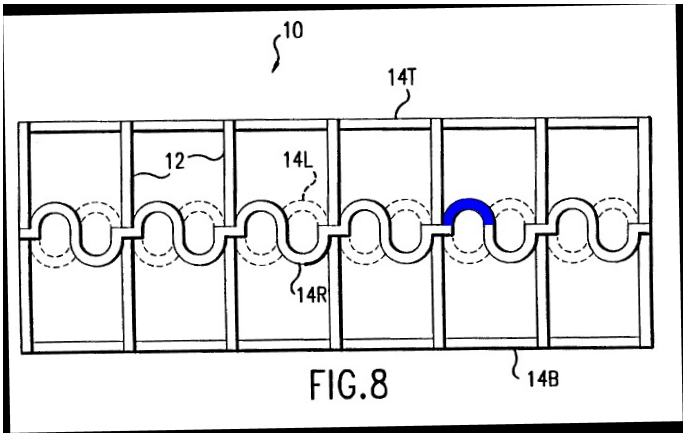
1. Claim construction: "circumferentially extending turn back portion"

Cordis has parsed the phrase and asserts that "circumferentially extending" does not need construction; alternatively, it is "extending in the direction of the stent's circumference." (D.I. 155 at 5) Cordis asserts that a "turn back portion" is "a portion that extends back in the general direction from which it came." (*Id.*) BSC proposes construing the "circumstantially extending turn back portion" limitation the same as "undulating," or "a shape that rises and falls in waves, and thus has at least a crest and a trough." (*Id.*)

There is no dispute that the phrase "circumferentially extending turn back portion"

[7]And its dependent claims.

does not appear in the specification or in the prosecution histories of any of the Fischell patents. (D.I. 180 at 17-18; D.I. 185 at 9) In response to BSC's invalidity proffer, Cordis directs the court to figure 8 of the '817 patent as an indication that the specification adequately discloses the "circumferentially extending turn back portion" limitation, as highlighted by Cordis below.[8]



(D.I. 226 at 3-4)

The specification describes figure 8 as "a side view of a post-deployment stent structure which utilizes two undulating longitudinals on opposite sides of the stent for improved placement in curved vessels." ('817 patent, col. 2:38-40) More specifically, "the left side longitudinal 14L (shown as dotted lines) and the right side longitudinal 14R are each undulating shaped longitudinals." (*Id.*, col. 3:47-53)

The dependent claims are the court's only other insight into the breadth of claim

[8]Cordis also emphasizes that there was no "new matter" rejection by the examiner when the "circumferentially extending turn back portion" language was introduced, nor is there any indication that the application issuing as the '817 patent was rejected over any of the earlier-issued patents within the Fischell family. While this may indicate that the examiner viewed the "turn back portion" limitation as supported by the specification, it is the specification itself that 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, and Cordis points only to figure 8 in this regard.

1. Claim 14 depends from claim 1, and further requires that the "turn back portion of said connector includes at least one generally U-shaped segment." Claim 15 depends from claim 14, and states that the "turn back portion of said connector includes at least two generally U-shaped segments that open in opposite directions." Claim 16 further depends from claim 15, and states that at least two of the U-shaped segments are adjacent to each other, and include a "pair of spaced apart legs joined by an arcuate section, and one of the legs of one of the U-shaped segments is coextensive with one of the legs of one of the other U-shaped segments." ('817 patent, col. 6:31-44)

In its efforts to construe the "circumferentially extending turn back portion" of claim 1 and its dependent claims, the court observes the following with respect to Cordis' proposed construction: "a portion that extends back in the general direction from which it came." As noted, the specification does not define "circumferentially extending turn back portions;" therefore, the patentees did not hold themselves out as their own lexicographers.[9] Nor is there any record evidence that the limitation employs a term of art known to those of ordinary skill in the art at the time. Indeed, Cordis only identifies figure 8 as reflective of its construction, which illustration Cordis has highlighted (for purposes of this litigation) without reference to either the intrinsic or extrinsic record for support. (D.I. 169 at ¶¶ 52-56 (cited at D.I. 168 at 7-9); D.I. 185 at 8;

[9]The court recognizes that courts should "only interpret a claim term more narrowly than its ordinary meaning. . . when a patentee sets out a definition and acts as [its] own lexicographer; or . . . when the patentee disavows the full scope of a claim term either in the specification or during prosecution." *Aventis Pharma, S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1339 (Fed. Cir. 2012) (quoting *Thorner v. Sony Computer Entertainment America L.L.C.*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (internal quotations omitted).

D.I. 226 at 2-3)[10] In sum, there is no guidance of record as to the shape of the turn back portion of claim 1 or to whether "circumferentially extending" refers to an outward direction, e.g., extending (along the stent's radius) towards the circumference, or the circular direction of the circumference itself, e.g., along the arc. Nor is it clear from what point of reference the highlighted portion must turn "back."

The claim structure of the '817 patent, however, is not compatible with BSC's construction of the limitation as "undulating." While "undulating" certainly describes figure 8 (*see* '817 patent, col. 2:38-40; col. 3:47-53), and while claim 1 is broad enough to cover a connector having undulating segments, dependent claim 14 (from which claims 15 and 16 further depend) adds a limitation – the "turn back portion of said connector includes at least one generally U-shaped segment." "[U]se of the phrase 'at least one' means that there could be only one or more than one." *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999). Claim 14 is inconsistent with the Federal Circuit's holding that a single U-shaped segment is not undulating because it does not contain both a crest and a trough.

Given the above, the court has two options: it must either construe the "circumferentially extending turn back portion" limitation as an "undulating" portion

[10]Cordis did not provide the highlighted figure 8 in its claim construction papers, only in response to BSC's invalidity summary judgment motion. (D.I. 226 at 2-3) Although Cordis cites the supplemental report of Buller in its responsive claim construction brief, which report contains Buller's explanation that the '817 patent is not invalid under § 112 based on figure 8's disclosure, Cordis stated that this evidence was "not relevant to claim construction." (D.I. 185 at 9, n.5 (citing D.I. 188, ex. 23 at ¶¶ 401-14) The court disagrees.

(depicted generally in figure 8) at the expense of dependant claims 14-16,[11] or hold the claims indefinite.[12] The Federal Circuit has made clear that the court can only apply the maxim that "claims should be construed to preserve their validity" if it "concludes, after applying all the available tools of claim construction, that [a] claim is still ambiguous." *Broadcom Corp. v. Qualcomm Inc.*, 543 F.3d 683, 690 (Fed. Cir. 2008) (quoting *Phillips v. AWH Corp.*, 415 F.3d 1303, 1327 (Fed. Cir. 2005) (en banc)).

In this case, the court so concludes. Absent limiting the claims to "undulating," there is no guidance as to the meets and bounds of the "circumferentially extending turn back portion" limitation, or that the boundaries of the claim are discernable to a person of ordinary skill in the art. *See Exxon Research and Engineering Co. v. U.S.*, 265 F.3d 1371, 1375 (Fed. Cir. 2001).

The court, therefore, construes a "circumferentially extending turn back portion" consistent with the only plausible construction supported by figure 8 of the specification: an "undulating portion, or a portion that rises and falls in waves." In so doing, the court nullifies dependent claims 14-16 and preserves the validity of claim 1 as supported by

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[11]"[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim[,] [a]lthough that presumption can be overcome if the circumstances suggest a different explanation, or if the evidence favoring a different claim construction is strong[.]" *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (citations omitted).

[12]While BSC argues that "the only remotely conceivable support for 'a circumferentially extending turn back portion' in the specification of the original application is the 'undulating longitudinal' of figure 8 and the accompanying written description," BSC does not argue that the limitation is indefinite. (D.I. 193 at 8) The court, however, has an independent duty to construe the terms at issue, notwithstanding the parties' positions. *See, e.g., Praxair, Inc. v. ATMI, Inc.*, 543 F.3d 1306, 1323-24 (Fed. Cir. 2008).

the specification.[13]

The court views the Federal Circuit's recent *en banc* decision in *Marine Polymer Technologies, Inc. v. Hemcon, Inc.*, 672 F.3d 1350 (Fed. Cir. 2012) (hereinafter, "*Hemcon*") as generally supportive of its determination. In *Hemcon*, the panel reviewed the district court's construction of the term "biocompatible" (as used in U.S. Patent No. 6,864,245) to mean "low variability, high purity, and **no** detectible biological reactivity as determined by biocompatibility tests." *Id.* at 1358 (emphasis added). Several dependent claims specified that the "biocompatible" polymer exhibit mold reactivity in an elution test (or a low elution test score) – i.e., some detectible biological reactivity. *Id.* In contrast, the specification cited to empirical test results showing that the polymer of the invention exhibited zero reactivity on each disclosed biocompatibility test. *Id.* A six-Judge majority[14] affirmed the district court's construction on the grounds that claim differentiation should not trump the teachings of the specification.[15] *Id.* at 1359.

While *Hemcon* involved a conflict between the specification and doctrine of claim differentiation, and the case at bar pits claim differentiation against the maxim that

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[13]Dependent claims 2-13 are not asserted in the present case and the court has not been asked to construe terms unique to those claims. The court does not render judgment on the validity of claims 2-13 under its construction.

[14]Judges Lourie, Newman, Bryson, Prost, Linn and Chief Judge Rader.

[15]Judges Dyk, Gajarsa, Reyna, and Wallach dissented, holding that construing "biocompatible" to mean "little or no detectable reactivity" would have preserved the validity of the dependant claims. *Hemcon*, 672 F.3d at 1368. The dissent disagreed that the adopted construction of "biocompatible" was "dictated" or "compelled" by the specification, insofar as: (1) the specification contained no affirmative indication that "a high degree of biocompatibility is achieved only when there is no reactivity;" and (2) the polymer "of the invention" exhibiting no reactivity was described as exemplary and (3) was a single example from the specification. *Id.* at 1368-69.

ambiguous claims should be construed as valid, the court reads *Hemcon* as supportive of the conclusion that claim differentiation takes second chair to more compelling interests.

2. Priority date and written description

"[A] district court must base its analysis of written description under § 112, ¶ 1 on proper claim construction."[16] *Koninklijke Philips Elecs. N.V. v. Cardiac Sci. Operating Co.*, 590 F.3d 1326, 1336 (Fed. Cir .2010) (citation omitted). Having construed "circumferentially extending turn back portion" as an "undulating portion, or a portion that rises and falls in waves" commensurate with figure 8 of the original specification, the court concludes that BSC has not met its burden to demonstrate that the '817 patent claims do not reach back to the February 25, 1994 priority date. BSC's motion for summary judgment of invalidity based upon Penn is denied.

C. Infringement

1. "Undulating"

The court takes up the issue of infringement on BSC's motion for summary judgment of noninfringement. (D.I. 208) Therein, BSC asserts that Cordis cannot show that the Promus stent meets the "undulating" requirement of the asserted claims of the

[16]To satisfy the written description requirement of 35 U.S.C. § 112, ¶ 1, "the specification must describe an invention understandable to that skilled artisan and show that the inventor actually invented the invention claimed." *Ariad Pharmaceuticals, Inc. v. Eli Lilly and Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2011). "[T]he level of detail required to satisfy the written description requirement varies depending on the nature and scope of the claims and on the complexity and predictability of the relevant technology." *Id.* (citation omitted). "The same standards govern whether new matter has been added to the specification" as proscribed by 35 U.S.C. § 132. *TurboCare Div. of Demag Delaval Turbomachinery Corp. v. General Elec. Co.*, 264 F.3d 1111, 1118 (Fed. Cir. 2001).

‘640 and ‘240 patents in view of *Cordis IV*. As described above, claim 1 of the ‘604 patent requires that at least a portion of at least one of said longitudinals has an “undulating shape,” claim 19 of the ‘240 patent requires part of a longitudinal structure to have an “undulating section,” and claims 21, 31 and 58 of the ‘240 patent require a connecting element having an “undulating section.”

The court agrees with BSC that *Cordis IV* forecloses Cordis’s arguments at bar that the Promus stent infringes these asserted claims. As the diagrams indicate (*supra*), both the NIR and Promus stents have U-shaped connecting elements that “merely level out,” rather than rising and falling in waves. *Cordis IV*, 658 F.3d at 1358. Buller’s opinion to the contrary is insufficient to withstand summary judgment in view of *Cordis IV*. The law of the case doctrine exists to “protect the settled expectations of the parties” as well as to “prevent[ ] endless litigation,” such as this “Stent Wars” saga has become. *See gen. Suel v. Secretary of Health and Human Services,* 192 F.3d 981, 984-85 (Fed. Cir. 1999) (citations omitted).

2. “Turn back portion”

BSC’s noninfringement argument with respect to the ‘817 patent was contingent upon the court’s defining the “circumferentially extending turn back portion” limitation of the claims as “undulating.” (D.I. 223 at 14-15) As discussed previously, Cordis’s expert, Buller, opines that the Promus stent infringes because the U-shaped portions of its connector elements have “waves” vis-a-vis a point of inflection. (D.I. 188, ex. 18 at A165-66, ¶¶ 15-20 (cited at D.I. 237 at 8-11)) Buller’s opinion contradicts the Federal Circuit’s views in *Cordis IV* and is insufficient to withstand summary judgment. BSC’s motion is granted.

V. CONCLUSION

In sum, the court grants-in-part and denies-in-part as moot BSC's motion for summary judgment, insofar as it holds that BSC's sales of the Promus stent is noninfringing per the License and the doctrine of patent exhaustion, but the asserted claims of the '817 patent are not invalid in view of Penn. (D.I. 205) Relatedly, Cordis's cross motion for partial summary judgment that the '817 patent is not invalid based on references post-dating the February 25, 1994 priority date is granted. (D.I. 225) The court grants BSC's second motion for summary judgment on the grounds that Cordis cannot show that the Promus stent meets the "undulating" or "circumferentially extending turn back portion" limitations of the asserted patents. (D.I. 208) An appropriate order shall issue.

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF DELAWARE

CORDIS CORPORATION,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civ. No. 10-39-SLR
	)	
BOSTON SCIENTIFIC CORPORATION and BOSTON SCIENTIFIC SCIMED, INC.,	)	
	)	
Defendants.	)	

ORDER

At Wilmington this 19th day of June 2012, consistent with the memorandum opinion issued this same date;

IT IS ORDERED that:

1. BSC's motion for summary judgment regarding invalidity and authorized sale (D.I. 205) is granted-in-part and denied-in-part.

2. BSC's motion for summary judgment regarding noninfringement (D.I. 208) is granted.

3. Cordis's motion for partial summary judgment (D.I. 225) is granted.

United States District Judge