

June 6, 1995) (“’730 Patent”) (collectively, “patents-in-suit”). See id. ¶¶ 1-4. This matter is currently before the Court for the resolution of the construction of certain disputed claim terms in the patents-in-suit. To assist the Court in resolving these disputes, a claim construction hearing was held on December 10, 2014. See December 10, 2014 Transcript of Markman Hearing (“Hr’g Tr.”) at 1. Upon careful consideration of the parties’ submissions,¹ as well as their oral arguments presented during the hearing, the Court adopts the constructions as described below.

I. FACTUAL BACKGROUND

The patents-in-suit “generally relate to cannulas for surgical and medical use.” Defs.’ Mem. at 2; see also Pl.’s Mem. at 4. Cannulas are “tube[s] that can be inserted into the body, often for the delivery or removal of fluid, to create a bigger workspace, or for the gathering of data.” Defs.’ Mem. at 2; see also Pl.’s Mem. at 4. Specifically, the patents-in-suit claim expandable cannulas, see, e.g., ’240 Patent, at [54], as well as methods of using expandable cannulas, see ’730 Patent, at [54]. The patents-in-suit are in the same patent family—that is, they share a common parent application and patent: U.S. Patent Application No. 08/013,942, which is now U.S. Patent No. 5,320,611 (filed Feb. 4, 1993) (“’611 Patent”). See ’240 Patent, at [60]; ’499 Patent, at [60]; ’730 Patent, at [60]; see also Corrected Answer and Counterclaim (“Countercl.”) at 10, 24-25.

This action came to the Court by way of a dispute between the parties regarding whether the plaintiff owed the defendants certain royalties under a particular licensing agreement

¹ In addition to the documents already mentioned, the Court considered the following filings in rendering its opinion: (1) the Joint Claim Construction and Prehearing Statement (“Joint Statement”); (2) the Defendants’/Counter-Plaintiffs’ Opening Claim Construction Memorandum (“Defs.’ Mem.”); (3) the Plaintiff and Counter-Defendant Covidien LP’s Claim Construction Brief (“Pl.’s Mem.”); (4) the Defendants’/Counter-Plaintiffs’ Reply Claim Construction Memorandum (“Defs.’ Reply”); (5) the Plaintiff and Counter-Defendant Covidien LP’s Surreply Claim Construction Brief (“Pl.’s Surreply”); and (6) the Joint Appendix of File Histories (“J.A.”).

involving the patents-in-suit.² See Compl. ¶¶ 1-4; see also id. ¶¶ 16-26. The defendants have filed counterclaims against the plaintiff, alleging infringement of the patents-in-suit and breach of contract. See Countercl. at 28-32. The chart below identifies the claims of the patents-in-suit that have been asserted by the defendants against the plaintiff. E.g., Hr’g Tr. at 6:5-19.

Patent	Asserted Claims
’240 Patent	1, 8, 12, 13, 15, 16
’499 Patent	23, 28
’730 Patent	45, 46, 47, 49, 51, 54, 55, 57

II. LEGAL STANDARD

“It is a ‘bedrock principle’ of patent law that ‘the claims of a patent define the invention to which the patentee is entitled the right to exclude.’” Phillips v. AWH Corp., 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1115 (Fed. Cir. 2004)). In return for that exclusionary right, the patentee must precisely define the invention. See id. And the Court cannot construe the invention “in a manner different from the plain import of its terms.” Id.; see also Inpro II Licensing, S.A.R.L. v. T-Mobile USA, Inc., 450 F.3d 1350, 1355 (Fed. Cir. 2006) (“[T]he claims [cannot] enlarge what is patented beyond what the inventor has described as the invention.” (internal quotation marks omitted)).

In construing the parties’ disputed claim terms, the Court must afford the terms their “ordinary and customary meaning” as understood by “a person of ordinary skill in the art in question at the time of the invention.” Phillips, 415 F.3d at 1312-13. A person of ordinary skill in the art is “deemed to read the claim term[s] not only in the context of the particular claim in

² U.S. Patent No. 5,573,517 (filed June 6, 1994) (“’517 Patent”) is also at issue in this case. Compl. ¶ 4. Although the plaintiff seeks a declaratory judgment of non-infringement of the ’517 Patent, the defendants have not asserted any claims of the ’517 Patent against the plaintiff. Pl.’s Mem. at 4 n.2.

which the disputed term[s] appear[], but in the context of the entire patent, including the specification” and the prosecution history. Id. at 1313; see also Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996) (“[I]n interpreting an asserted claim, the court should look first to the intrinsic evidence of record, i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history.”). The specification “is the single best guide to the meaning of . . . disputed [claim] term[s].” Vitronics, 90 F.3d at 1582.

It can also be appropriate to use extrinsic evidence to determine a term’s meaning. See Phillips, 415 F.3d at 1317; see also Hormone Research Found., Inc. v. Genentech, Inc., 904 F.2d 1558, 1562 (Fed. Cir. 1990) (“Claim interpretation involves a review of the specification, the prosecution history, the claims (including unasserted as well as asserted claims), and, if necessary, other extrinsic evidence” (emphasis added)). Extrinsic evidence “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” Phillips, 415 F.3d at 1317 (internal quotations omitted). But “while extrinsic evidence can shed useful light on the relevant art, . . . it is less significant than the intrinsic record in determining the legally operative meaning of claim language.” Id. (citations and internal quotation marks omitted).

Claim terms are not afforded their ordinary and customary meaning in only two circumstances: “(1) when a patentee sets out a definition and acts as his own lexicographer, or (2) when the patentee disavows the full scope of the claim term either in the specification or during prosecution.” Thorner v. Sony Computer Entm’t Am. LLC, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing Vitronics, 90 F.3d at 1580); see also Edwards Lifesciences LLC v. Cook Inc., 582 F.3d 1322, 1329 (Fed. Cir. 2009) (explaining that ordinary meaning of claim terms controls unless “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.” (internal quotation marks omitted)).

Where the patents-in-suit are derived from the same parent application, sharing many common terms, claim terms must be construed consistently across the patents-in-suit. See, e.g., Microsoft Corp. v. Multi-Tech Sys., Inc., 357 F.3d 1340, 1349-50 (Fed. Cir. 2004).

III. LEGAL ANALYSIS

A. Undisputed Terms

The following claim terms and constructions have been agreed to by the parties. Joint Statement at 2; Pl.’s Mem. at 45; see also Defendants’ Argument: PowerPoint Slides and Corresponding Transcript at 20.

Claim Term	Construction
Flexible Portion	No construction required
Longitudinal/Longitudinally	Extending in the direction of the length of a thing
Sheath	A case or covering
Side wall of the vessel	Plain and ordinary meaning
Wires being disposed in a longitudinally extending array	An arrangement of wires extending in the direction of the length of the cannula

B. Disputed Terms

1. Pierce/Piercing

Disputed Terms	Plaintiff’s Proposal	Defendants’ Proposal
Pierce/Piercing '240 Patent (claim 1) '499 Patent (claim 28) '730 Patent (claims 45, 49, 51, 54)	Initiate/Initiating formation of an opening where there is no opening	Pushing, or forming an opening, through

The parties’ dispute here boils down to whether the terms “pierce” and “piercing” in the context of the patents-in-suit are necessarily limited to the formation of an opening, or if the

terms may also include the “pushing through” of a pre-existing opening. See Pl.’s Mem. at 11. The intrinsic evidence supports the limiting construction proposed by the plaintiff. Id.

First, particularly instructive is asserted method claim 45 of the ’730 Patent. Claim 45 distinguishes between the formation of an opening, i.e., “piercing,” and the movement through that opening. Claim 45 reads:

A method of establishing communication with the interior of a vessel in a human body, said method comprising the steps of providing a cannula having a tubular sheath enclosing a plurality of wires, piercing a side wall of the vessel in the human body with leading end portions of the sheath and the wires, thereafter, moving the sheath and the wires into the vessel through an opening formed during performance of said step of piercing the side wall of the vessel with the leading end portions of the sheath and wires, and, thereafter, expanding the portion of the sheath disposed in the vessel.

’730 Patent col. 25 l. 66 - col. 26 l. 9 (emphasis added). Claim 45 states that only after the cannula has “pierc[ed]” the side wall of a vessel, can the sheath and wires of the cannula then be “mov[ed]” through the vessel. Id. The use of the term “thereafter” indicates that the act of “piercing” the vessel is a separate step that precedes the actual movement of the sheath and wires of the cannula through the vessel. If “piercing” included movement of the sheath and wires of the cannula through a pre-existing hole, there would be no need to include the “thereafter” clause regarding the movement through the vessel. See, e.g., Digital-Vending Servs. Int’l, LLC v. Univ. of Phoenix, Inc., 672 F.3d 1270, 1275 (Fed. Cir. 2012) (explaining that it is important to construe “claim terms in light of the surrounding claim language, such that words in a claim are not rendered superfluous”); Lexion Med., LLC v. Northgate Techs., Inc., 641 F.3d 1352, 1356 (Fed. Cir. 2011) (preferring “a claim interpretation that harmonizes the various elements of the claim to define a workable invention”).

Second, the specification is likewise informative on the meaning of the terms “pierce” and “piercing.” In the Summary of the Invention, the inventors explained that “pierce” means the following:

In accordance with another feature of the invention, a leading end portion of the cannula is constructed to pierce human body tissue. This enables the cannula to form its own opening in body tissue as the cannula is inserted into the tissue.

’730 Patent col. 1 ll. 40-44 (emphasis added); see also id. col. 12 ll. 35-46, col. 16 ll. 8-15. Thus, in providing an overview of the claimed invention, the inventors used “pierce” to describe only the formation of an opening.³ See C.R. Bard, Inc. v. U.S. Surgical Corp., 388 F.3d 858, 864 (Fed. Cir. 2004) (“Although a statement’s location is not determinative, the location can signal the likelihood that the statement will support a limiting definition of a claim term. Statements that describe the invention as a whole, rather than statements that describe only preferred embodiments, are more likely to support a limiting definition of a claim term.” (internal quotation marks omitted)); see also Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc., 262 F.3d 1258, 1268 (Fed. Cir. 2001) (“[T]he specification may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a reading of the patent documents.’” (quoting Vitronics, 90 F.3d at 1582, 1584 n.6)); Phillips, 415 F.3d at 1316 (“The construction that stays true to the claim language and most naturally aligns with the patent’s

³ The proper construction of “pierce” becomes more apparent when the summary of the invention is read in conjunction with the background of the invention. See ResQNet.com, Inc. v. Lansa, Inc., 346 F.3d 1374, 1380-81 (Fed. Cir. 2003) (explaining that although there is a “general rule that limitations should not be imported from the specification based solely on overcoming problems in the prior art,” there can be instances where “the specification, including those portions relating to extant problems in prior art, properly confirms the meaning of claim language”). In the background, the specification states that an obstacle in the prior art was that a “surgeon must first make an incision the full[-]depth of the cannula in order to insert the cannula” and so it was “desirable to provide cannulas which do not require a full[-]depth incision, or at least require only a needle-size entrance opening” ’730 Patent col. 1 ll. 20-27. The specification then indicates that the claimed invention overcomes this obstacle because there is “a leading end portion of the cannula” that can “pierce human body tissue,” and thus “enable the cannula to form its own opening in body tissue as the cannula is inserted into the tissue.” Id. col. 1 ll. 40-44.

description of the invention will be, in the end, the correct construction.” (quoting Renishaw PLC v. Marposs Societa’ Per Azioni, 158 F.3d 1243, 1250 (Fed. Cir. 1995))).

Also informative is Figure 26 in the specification, which is described as “a fragmentary schematic illustration depicting the relationship between the contracted cannula and a blood vessel after the cannula has pierced skin and body tissue adjacent to the blood vessel and prior to piercing of a side wall of the blood vessel.” ’730 Patent col. 2 ll. 56-60 (emphasis added). The specification goes on to explain in detail that

[a]fter penetrating body tissue 460 beneath the skin, the pointed end portion 446 of the cannula 400 pierces an imperforate surface area on a side wall 456 of a vein or blood vessel 458 (FIGS. 26, 27, and 28). Thus, the cannula 400 is used to initiate the formation of openings in the skin 454 and side wall 456 of the blood vessel 458 at locations where there is no naturally occurring opening and without the necessity of making an incision prior to insertion of the cannula.

Id. col. 12 ll. 38-46 (emphasis added); see also id. col. 13 ll. 25-29 (“Since the cannula 400 is in the contracted condition of FIG. 22 when the side wall 456 of the blood vessel 458 is pierced, a relatively small opening 476 is formed in the side wall 456 of the blood vessel 456 by the cannula 400.” (emphasis added)). Together, these two descriptions of Figure 26 indicate that “pierce” means, in the context of the ’730 patent, to form an opening where none exists.

The defendants, in a somewhat convoluted fashion, maintain that “pierce” must also encompass “push through” because while Figure 32 is said to illustrate the relationship between the cannula and the skin “immediately prior to piercing of the skin,” id. col. 3 ll. 15-20, it actually depicts the cannula as “already initiat[ing] . . . [an] opening in the skin,” and so it would be inconsistent for the Court to construe “pierce” or “piercing” to mean initiate or initiating the

formation of an opening.⁴ Defs.’ Mem. at 14. But Figure 32 does in fact show a cannula immediately before it “pierces” the skin. To the extent there is any ambiguity as to what Figure 32 depicts, it is clarified by the following explanation of Figure 32:

When the contracted cannula 400b is to be used to form an opening in skin 454b, the pointed end portion 484 of the wire core 410b engages the outer side surface 464b of the skin before the sheath 402b engages the skin. This results in the sharp outer end portion 484 of the core 410b piercing the outer side surface 464b of the skin 454b before the skin is engaged by the sheath 402b. By piercing the outer side surface 464b of the skin 454b with the pointed end portion 484 of the core 410b, the forming of an opening in the skin by the contracted cannula 400b is facilitated.

’730 Patent col. 15 ll. 17-26 (emphasis added). This passage confirms that Figure 32 depicts a cannula “immediately prior to piercing of the skin,” id. col. 3 ll. 15-20, because the cannula must first pierce the outer side surface of the skin “before” it can do the same to the skin, id. col. 15 ll. 17-26.

Third, the plaintiff’s limiting construction is buttressed further by the prosecution history of the ’730 Patent. Bell Atl. Network Servs., 262 F.3d at 1268 (“The prosecution history is considered to determine whether or not there were any express representations made in obtaining the patent regarding the scope and meaning of the claims.” (citing Vitronics, 90 F.3d at 1582)); see also 800 Adept, Inc. v. Murex Sec., Ltd., 539 F.3d 1354, 1364-65 (Fed. Cir. 2008) (consulting prosecution history to “use . . . as support for the construction already discerned from the claim language”); Dunhall Pharm., Inc. v. Discus Dental, Inc., 243 F.3d 564, 2000 WL 1608803, at *4 (Fed. Cir. 2000) (unpublished) (“The exchange between the patentee and the patent examiner often reveals representations made in obtaining the patent from the Patent and

⁴ The Court notes that the defendants’ position in their brief that Figure 32 demonstrates that “the patents are using the term ‘piercing’ to refer to pushing through . . . [and] not initiating the formation of an opening,” Defs.’ Mem. at 14 (emphasis added), is somewhat inconsistent with the one they took during the Markman hearing, where they posited that “piercing” is broad and can mean “initiating an opening,” as well as “pushing through,” see, e.g., Hr’g Tr. at 56:15-18.

Trademark Office . . . regarding the scope and meaning of claim terms, even those with definitions provided for in the specification.”). During the prosecution of the ’730 Patent, both the PTO examiner and the inventors shared a common understanding that “pierce” meant to “initiate an opening where there is no opening,” which is consistent with the plain language of asserted claim 45, as well as the specification. See Saffran v. Johnson & Johnson, 712 F.3d 549, 559 (Fed. Cir. 2013) (limiting claim term because, inter alia, “the examiner shared” the patentee’s “stated view of the claimed device”), cert. denied, _ U.S. _, 134 S. Ct. 1023 (2014); ERBE Elektromedizin GmbH v. Canady Tech. LLC, 629 F.3d 1278, 1286-87 (Fed. Cir. 2010) (“Arguments made during prosecution regarding the meaning of a claim term are relevant to the interpretation of that term in every claim of the patent absent a clear indication to the contrary.” (alteration and internal quotation marks omitted)); see also Honeywell Inc. v. Victor Co. of Japan, 298 F.3d 1317, 1324 (Fed. Cir. 2002) (highlighting significance of prosecution history in determining the meaning of claim terms). In rejecting a proposed claim, the examiner stated:

As to the rejection of claim 70 based upon Lee et al., the Lee et al. sheath 10 and wires 20 are moved through an opening (which was) formed in the side wall of the blood vessel during performance of the step of piercing a side wall of the blood vessel with the leading portion of the cannula as claimed. The phrase “during performance of the step of piercing a side wall of the blood vessel” refers to the time the opening was formed in the side wall of the blood vessel.

’730 Patent Prosecution History (“’730 Patent History”), August 12, 1997 Examiner’s Answer (“Examiner Ans.”), J.A. at FH 1237-38.⁵ The inventors responded to the examiner’s statement by acknowledging that it was “correct in that the step of piercing a side wall of the blood vessel refers to the time the opening was formed in the side wall of the blood vessel.” ’730 Patent

⁵ The parties provided courtesy copies of file histories to various patents and applications, including those for the patents-in-suit. See J.A. In doing so, the parties designated their own Bates numbers to the file histories. For ease of reference, the Court will cite the Bates numbers assigned to the file histories by the parties.

Prosecution History, September 2, 1997 Reply Brief (“Reply”), J.A. at FH 1531-32 (emphasis added); see also id. at FH 1532 (“[I]t is clear that the needle 11 of Lee et al. performs the function of piercing a side wall of the blood vessel at the time the opening is formed.”). And they highlighted for the examiner that “the statement [wa]s incorrect in stating the sheath 10 and wires 20 are moved through an opening in the side wall of a blood vessel during piercing of the side wall of the blood vessel with a leading end portion of the cannula as claimed.”⁶ Id. at FH 1531-32 (second emphasis added); see also ’730 Patent Prosecution History, June 5, 1997 Appeal Brief (“Appeal”), J.A. at FH 1270 (“Therefore, Lee et al. can not [sic] move a sheath and wires through an opening formed in a side wall of a blood vessel during piercing of the blood vessel as set forth in claim 70.”); ’730 Patent Prosecution History, Reply, J.A. at FH 1532 (“The sheath 10 and wires 20 of Lee et al. are not moved through the opening in the side wall of the blood vessel during piercing of the side wall of the blood vessel . . .”). Thus, the specification and the prosecution history of the ’730 Patent comport with the plain language of asserted claim

⁶ The defendants would have the Court ignore this exchange between the inventors and the PTO examiner because they were not discussing a claim at issue in this case. See Defs.’ Reply at 10 (noting that the communications concerned claim 14 of the ’730 Patent). But substantially similar claim language is found in both claims 14 and 45 of the ’730 Patent, compare ’730 Patent col. 21 ll. 43-51 (“piercing a side wall of the blood vessel with a leading end portion of the cannula, moving the sheath and the plurality wires of the cannula through an opening, formed in the side wall of the blood vessel during performance of said step of piercing a side wall of the blood vessel with the leading end portion of the cannula), with id. col. 26 ll. 2-8 (“piercing a side wall of the vessel in the human body with leading end portions of the sheath and the wires, thereafter, moving the sheath and the wires into the vessel through an opening formed during performance of said step of piercing the side wall of the vessel with the leading end portions of the sheath and wires), and claim terms must be construed consistently within the patent, see, e.g., Frank’s Casing Crew & Rental Tools, Inc. v. Weatherford Int’l, Inc., 389 F.3d 1370, 1377 (Fed. Cir. 2004) (“This court recognizes that the principle of consistency within claims operates within the framework of related claims.”). In any event, claim 14 also supports the notion that “piercing” and “pushing through” an opening are not one and the same. ’730 Patent col. 21 ll. 43-51 (“piercing a side wall of the blood vessel with a leading end portion of the cannula, moving the sheath and the plurality wires of the cannula through an opening, formed in the side wall of the blood vessel during performance of said step of piercing a side wall of the blood vessel with the leading end portion of the cannula” (emphasis added)).

45, demonstrating that “pierce” means to “initiate formation of an opening where there is no opening.”⁷

Also relevant is the prosecution history of U.S. Patent Application No. 11/169/475 (“’475 Application”), an application that is related to the patents-in-suit, as they all belong to the same patent family.⁸ In response to an office action, and similar to the prosecution of the ’730 Patent, the PTO examiner’s understanding of the term “piercing” was corrected by the inventor. The examiner was told the following:

In the Final Office Action, “piercing” is interpreted to be “penetrating into or running through.” Applicant disagrees with this interpretation. . . . [A]s used in the specification and consistent with the ordinary dictionary definition, “piercing” as set forth in the claims means to form an opening or hole.”

⁷ Although the defendants concede this line of reasoning for the ’730 Patent, see Hr’g Tr. at 106:13-107:1, they argue that the term “pierce” is nevertheless entitled to a broad construction because other claims in related patents, such as claim one of the ’240 Patent, purportedly use “pierce” more broadly than claim 45 of the ’730 Patent, see id. at 107:1-3; see also id. at 59:4-24. The defendants’ contention is neither compelling nor consistent with the case authority that instructs the Court to construe terms consistently across patents in the same family. See, e.g., Microsoft Corp., 357 F.3d at 1349-50; Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1334 (Fed. Cir. 2003) (“[W]e presume, unless otherwise compelled, that the same claim term in the same patent or related patents carries the same construed meaning.”). If the Court embraced the broader meaning of “pierce,” it would undoubtedly render certain claim terms superfluous in the ’730 Patent, which would also be contrary to case authority. See, e.g., Digital-Vending, 672 F.3d at 1275. And as the Court will soon explain, “pierce” is not used broadly in other claims of related patents, as it otherwise refers to the initiation of an opening where there is none.

⁸ The defendants claim that the ’475 Application is “irrelevant” to the Court’s analysis of the terms “pierce” and “piercing” because the subject matter of the application is completely “different” than the subject matter of the patents-in-suit. See Defs.’ Reply at 10-11. But that does not appear to be the case. The subject matter of both the ’475 Application and the patents-in-suit are related, as there is no dispute that the ’475 Application and the patents-in-suit belong to the same patent family. See, e.g., Hr’g Tr. at 96:1-97:19 (plaintiff contending that ’475 Application is part of the same family as the patents-in-suit); id. at 104:1-109:3 (no dispute); see also ’475 Application, June 29, 2005 BIB Data Sheet (“Data Sheet”), J.A. at FH 7206 (showing that ’475 Application bears relation to the patents-in-suit).

Further, the applicant went so far as to acknowledge that the ’611 Patent—the parent patent of the patents-in-suit—was “material to the examination” of the ’475 Application. ’475 Application, June 29, 2005 Information Disclosure Statement Pursuant to 37 C.F.R. § 1.56 (“IDS”), J.A. at FH 7297, 7300. Thus, the Court cannot disregard the ’475 Application when construing the disputed claim terms. See, e.g., Capital Mach. Co. v. Miller Veneers, Inc., 524 F. App’x 644, 649 (Fed. Cir. 2013) (holding “that the prosecution history regarding a claim term is pertinent when interpreting the same term in both later-issued and earlier-issued patents in the same family”); Ventana Med. Sys., Inc. v. Biogenex Labs., Inc., 473 F.3d 1173, 1184 (Fed. Cir. 2006) (holding that “statements made by the inventor during continued prosecution of a related patent application can, in some circumstances, be relevant to claim construction”); see also V-Formation, Inc. v. Benetton Grp. SpA, 401 F.3d 1307, 1311 (Fed. Cir. 2005) (“This court has established that ‘prior art cited in a patent or cited in the prosecution history of the patent constitutes intrinsic evidence.’” (quoting Kumar v. Ovonic Battery Co., 351 F.3d 1364, 1368 (Fed. Cir. 2003))).

'475 Application, September 17, 2009 Response to Final Office Action and Request for Continued Examination Pursuant to 37 C.F.R. § 1.114 (“Response”), J.A. at FH 7149-50. The plaintiff’s narrow construction of “pierce” and “piercing” is therefore supported by compelling intrinsic evidence.

The Court is unmoved by the defendants’ efforts to undermine the intrinsic evidence, which strongly demonstrates that their construction is overbroad and incorrect. First, the defendants’ invoke the doctrine of claim differentiation. Defs.’ Mem. at 12. Specifically, they argue that because independent claim 23 of the ’240 Patent has the following limitation—“said cannula having a pointed end portion to pierce body tissue,” and because its dependent claim 25 further adds the following limitation—“during insertion of said pointed end portion of said cannula through an imperforate surface on body tissue,” then the term “pierce” must include passing or moving through a perforate surface, otherwise there would be no need to add the word “imperforate” to dependent claim 25. *Id.* The defendants’ claim differentiation argument has little appeal.

Claim differentiation is 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). It “refers to the presumption that an independent claim should not be construed as requiring a limitation added by a dependent claim.” *Id.* The presumption is “especially strong” where “the limitation in dispute is the only meaningful difference between an independent and dependent claim, and one party is urging that the limitation in the dependent claim should be read into the independent claim.” SunRace Roots Enter. Co. v. SRAM Corp., 336 F.3d 1298, 1303 (Fed. Cir. 2003) (emphasis added) (citing Ecolab Inc. v. Paraclipse, Inc., 285 F.3d 1362, 1375 (Fed. Cir. 2002)). This presumption,

however, is rebuttable. Id. (explaining that the presence of a dependent claim that adds a particular limitation raises a rebuttable presumption that the limitation at issue is absent from the independent claim).

Here, although reading independent claim 23 and dependent claim 25 of the '240 Patent in conjunction could potentially impose an additional limitation on the term "pierce," such that the term is as broad as the defendants suggest, there is an additional limitation unrelated to the term "pierce" that is found in dependent claim 25. See '240 Patent col. 23 ll. 14-18 ("wherein said sheath has an outer end surface which engages body tissue at locations between adjacent wires"). And where, as here, the dependent claim has multiple limitations, claim differentiation arguments are routinely discounted in claim construction analyses. See, e.g., Telemac Cellular Corp. v. Topp Telecom, Inc., 247 F.3d 1316, 1326 (Fed. Cir. 2001) (noting that because the dependent claim "embraces additional limitations not encompassed within" the independent claim, the claim differentiation argument was unpersuasive); see also GeoTag, Inc. v. Frontier Commc'ns Corp., No. 10-cv-265(JRG), 2013 WL 693852, at *10 (E.D. Tex. Feb. 26, 2013) (reasoning that claim differentiation argument is inapplicable where the dependent claim at issue contains more than just the limitation in dispute); Premier Int'l Assocs. v. Apple Computer, Inc., 512 F. Supp. 2d 737, 743 (E.D. Tex. 2007) (finding that "claim differentiation argument fail[ed] because the relevant dependent claims . . . add[ed] additional limitations other than the limitation" in dispute). Even if the doctrine of claim differentiation assisted the defendants in creating the rebuttable presumption, the presumption is defeated by the aforementioned intrinsic evidence. Marine Polymer Techs., Inc. v. HemCon, Inc., 672 F.3d 1350, 1359 (Fed. Cir. 2012) (en banc) ("[C]laim differentiation is 'not a hard and fast rule and will be overcome by a contrary construction dictated by the written description or prosecution history.'" (quoting

Seachange Int'l, Inc. v. C-COR, Inc., 413 F.3d 1361, 1369 (Fed. Cir. 2005)); InterDigital Commc'ns, LLC v. Int'l Trade Comm'n, 690 F.3d 1318, 1324 (Fed. Cir. 2012), on reh'g, 707 F.3d 1295 (Fed. Cir. 2013) (“[T]he doctrine of claim differentiation creates only a presumption, which can be overcome by strong contrary evidence such as definitional language in the patent or a clear disavowal of claim scope”); Backyard Nature Prods., Inc. v. Woodlink, Ltd., 81 F. App'x 729, 731-32 (Fed. Cir. 2003) (finding intrinsic evidence overcame presumption created by claim differentiation).

The defendants also direct the Court's attention to certain portions of the '240 Patent specification where they contend “pierce” entails activities in addition to the formation of an opening where none existed because “the specification distinguishes between initiating an opening and ‘piercing.’” Defs.' Mem. at 12-13. In light of the intrinsic evidence outlined earlier, however, the Court does not read these portions of the specification in the same manner as the defendants. Rather, they demonstrate that references to the forming of an opening and “pierce” or “piercing” are used to describe the same activity. See Curtiss-Wright, 438 F.3d at 1380 (“[C]laim drafters can also use different terms to define the exact same subject matter.”); see also Baran v. Med. Device Techs., Inc., 616 F.3d 1309, 1316 (Fed. Cir. 2010) (explaining that the “implication” that different terms have different meanings can be overcome by evidence to the contrary); Edwards Lifesciences, 582 F.3d at 1329 (“The interchangeable use of the two terms is akin to a definition equating the two.”); Advanced Cardiovascular Sys., Inc. v. Medtronic Vascular, Inc., 182 F. App'x 994, 997 (Fed. Cir. 2006).

Lastly, the Court finds it unnecessary to consult extrinsic evidence in construing the terms “pierce” and “piercing,” as the intrinsic evidence clearly demonstrates that the terms are

not entitled to the broad construction proposed by the defendants.⁹ E.g., Vitronics, 90 F.3d at 1583 (“In those cases where the public record unambiguously describes the scope of the patented invention, reliance on any extrinsic evidence is improper. The claims, specification, and file history, rather than extrinsic evidence, constitute the public record of the patentee’s claim, a record on which the public is entitled to rely.”). In short, the Court adopts the plaintiff’s construction of the terms “pierce” and “piercing,” which is to “initiate” or “initiating” the “formation of an opening where there is no opening.”

2. Wires Having Longitudinal Central Axes Which Are Disposed in a Parallel Relationship

Disputed Terms	Plaintiff’s Proposal	Defendants’ Proposal
Wires having longitudinal central axes which are disposed in a parallel relationship '499 Patent (claim 23)	Wires that have parallel central axes extending in the length of the wires— this excludes tubular braids	At least two wires that have parallel central axes extending in the length of the wires ¹⁰

The heart of the parties’ conflicting positions here is whether the scope of the disputed term, found only in asserted claim 23 of the ’499 Patent, encompasses wires in the orientation of tubular braids. See Pl.’s Mem. at 25. Otherwise, their proposed constructions are nearly identical. See Hr’g Tr. at 4:20-5:9, 20:2-16, 110:17-111:20, 112:23-113:11; see also Hr’g Tr. at 111:3-10 (suggesting scope of term is disputed, but not the meaning).

The determination of claim scope is a function for the Court. See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., 521 F.3d 1351, 1361-62 (Fed. Cir. 2008) (explaining that where

⁹ The Court need not rely on extrinsic evidence for any of the disputed claims terms, as the intrinsic evidence clearly sheds light on their proper constructions.

¹⁰ The defendants’ proposed construction was amended at the claim construction hearing. See Hr’g Tr. at 111:3-25 (defendants’ counsel stating that “at this point, we propose a definition that’s almost the same as [the plaintiff’s definition], the only difference is we add the words ‘at least two’ before wires And we get rid of the last part, which is this excludes a tubular braid.”); id. at 113:1-11.

parties agree on a “common meaning” of a disputed claim term, “but then proceed[] to dispute the scope of that claim term . . . [,] claim construction requires the court to determine what claim scope is appropriate in the context of the patents-in-suit. . . . When the parties present a fundamental dispute regarding the scope of a claim term, it is the court’s duty to resolve it.”). In accordance with this duty, scrutiny by the Court of the ’499 Patent prosecution history reveals that the inventors disavowed tubular braids from their claimed invention. See World Class Tech. Corp. v. Ormco Corp., 769 F.3d 1120, 1123 (Fed. Cir. 2014) (explaining that although claim terms are generally given “their ordinary meaning in the context of the claim and the whole patent document; the specification particularly, but also the prosecution history, informs the determination of claim meaning in context, including by resolving ambiguities; and even if the meaning is plain on the face of the claim language, the patentee can, by acting with sufficient clarity, disclaim such a plain meaning or prescribe a special definition.”); see also Dunhall, 2000 WL 1608803, at *4 (“[W]hether or not a specific definition of a term is present in the specification, ‘the prosecution history (or file wrapper) 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.’” (quoting Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452 (Fed. Cir. 1985))).

During the prosecution of the ’499 Patent, asserted claim 23 was initially rejected by the PTO examiner as being “unpatentable over Fogarty et al. in view of Leckrone.”¹¹ ’499 Patent Prosecution History (“’499 Patent History”), November 15, 1996 Final Office Action (“Office Action”), J.A. at FH 0713. The inventors appealed to the Board of Patent Appeals and

¹¹ Claim 23 began as claim 34 when the inventor prosecuted the patent. See ’499 Patent Prosecution History (“’499 Patent History”), October 7, 1996 Amendment (“Amendment”), J.A. at FH 0687.

Interferences (“Appeals Board”) in hopes of overturning that rejection. See ’499 Patent History, December 9, 1996 Notice of Appeal (“Notice”), J.A. at FH 0721. In their appeal, the inventors distinguished claim 23 from the prior art and brought to the Appeals Board’s attention that:

Claim [23] further defines over the patent to Fogarty et al. and Leckrone by setting forth the wires as having longitudinal central axes which are disposed in a parallel relationship when the sheath is in the contracted condition and when the sheath is in the expanded condition. The tubular braid 38 is illustrated in Fig. 3 of the patent to Fogarty et al. It is clear that the monofilaments or wires 42 in the tubular braid 38 of Fogarty et al. do not have longitudinal central axes which are disposed in a parallel relationship.^[12]

’499 Patent History, January 7, 1997 Appellant’s Brief (“App. Br.”), J.A. at FH 0751; see also ’499 Patent History, October 7, 1996 Amendment (“Amendment”), J.A. at FH 0701 (“Claim 34 defines over the prior art by setting forth the plurality of wires which are enclosed by the sheath and are disposed in a longitudinally extending array along an inner side of the sheath. . . . The wires have longitudinal central axes which are disposed in a parallel relationship when the sheath is in the contracted condition and when the sheath is in the expanded condition. In the patents to Fogarty et al. and Gold et al., the wires do not have longitudinal central axes which are disposed in a parallel relationship.”); Defs.’ Mem. at 19 (explaining that “the patent to Gold et al.” is an

¹² The defendants initially contended that the emphasis on “parallel” was a “mistake” during the prosecution of the ’499 Patent, Defs.’ Reply at 19, but then “stepped back” from that argument at the claim construction hearing, Hr’g Tr. at 132:14. This was a wise strategy by the defendants, because to the extent the revisionist history is accurate, the defendants must live with the alleged “mistake.” See Springs Window Fashions LP v. Novo Indus., L.P., 323 F.3d 989, 995 (Fed. Cir. 2003) (“In this case, a reasonable competitor, reviewing the amendments and statements made by the applicant to distinguish the claimed invention from [the prior art], would conclude that the claimed invention did not cover a device like [the one in the prior art]. If the applicant mistakenly disclaimed coverage of the claimed invention, then the applicant should have amended the file to reflect the error, as the applicant is the party in the best position to do so.”); Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc., 222 F.3d 951, 956-57 (Fed. Cir. 2000) (refusing to excuse “erroneous” statements made during prosecution that lead to disclaimers because to entertain such an argument would be commensurate “to a request for a mulligan that would erase from the prosecution history the inventor’s disavowal of a particular aspect of a claim term’s meaning” and “inimical to the public notice function provided by the prosecution history,” as “[t]he prosecution history constitutes a public record of the patentee’s representations concerning the scope and meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct, such as designing around the claimed invention.”).

example of a “tubular braid”). After considering the inventors’ explanation as to how claim 23 defined over the prior art, the examiner withdrew the rejection. See ’499 Patent History, February 5, 1997 Examiner’s Answer (“Answer”) at FH 0820. This is a clear and unambiguous disavowal of claim scope. E.g., Saffran, 712 F.3d at 559.

The defendants’ primary response is to invoke the “exacting” standard necessary to prove prosecution disclaimer, Thorner, 669 F.3d at 1366, and insist that it has not been satisfied, see Defs.’ Mem. at 18-20, 23. But the inventors were not required to state precisely that “tubular braids are not within the scope of the invention” during the prosecution of the patent, id. at 23 (emphasis omitted), see also Defs.’ Reply at 18, in order for the Court to find that they sufficiently disavowed tubular braids from their claimed invention, Saffran, 712 F.3d at 559 (“[A]pplicants rarely submit affirmative disclaimers along the lines of ‘I hereby disclaim the following . . .’ during prosecution and need not do so to meet the applicable standard.”); see also Ballard Med. Prods. v. Allegiance Healthcare Corp., 268 F.3d 1352, 1361 (Fed. Cir. 2001) (“[T]he scope of the disclaimer must be determined by what a competitor would reasonably believe that the applicant had surrendered.” (internal quotation marks omitted)). The inventors’ distinction of the claimed invention over the prior art was sufficient for the prosecution disclaimer.¹³ See Saffran, 712 F.3d at 559 (“[A]n applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the

¹³ The defendants maintain that there is no clear and unmistakable disclaimer because the inventors never explain why the tubular braids in the patent to Fogarty et al. are not wires that have longitudinal central axes, which are disposed of in a parallel relationship. See Hr’g Tr. at 114:15-117:25. But the inventors were not required to provide a rationale for why the prior art is distinguishable from the claimed invention, so long as they did distinguish it. See Ekchian v. Home Depot, Inc., 104 F.3d 1299, 1304 (Fed. Cir. 1997) (“[B]y distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover, he is by implication surrendering such protection.”); All Dental Prodx, LLC v. Advantage Dental Prods., Inc., 309 F.3d 774, 780 (Fed. Cir. 2002) (finding disclaimer of shape where applicant distinguished over prior art by explaining that shape found in prior art was not shape in the claimed invention).

applicant distinguishes the reference on other grounds as well.” (internal quotation marks omitted)); see also Uship Intellectual Props., LLC v. United States, 714 F.3d 1311, 1315 (Fed. Cir. 2013) (noting that case authority “broadly state[s] that an applicant’s statements to the PTO characterizing its invention may give rise to a prosecution disclaimer”). Therefore, the Court adopts the plaintiff’s construction of the disputed term, i.e., “wires that have parallel central axes extending in the length of the wires,”¹⁴ and finds that the scope of the term does not encompass “tubular braids.”

3. Expandable/Expanded/Expanding

Disputed Terms	Plaintiff’s Proposal	Defendants’ Proposal
Expandable/Expanded/Expanding '240 Patent (claims 1, 8, 12, 13, 15-16) '499 Patent (claim 23) '730 Patent (claims 45-47, 49, 55, 57)	Able to be stretched/stretched/stretching, without breaking, to a larger cross-sectional area	Plain and ordinary meaning

The parties dispute these derivatives of the word expand. While the defendants propose the plain and ordinary meaning for the proper construction of these terms, Defs.’ Mem. at 24, the plaintiff seeks to narrow the defendants’ construction, such that the terms only encompass “stretching” (or some derivative of this word) “without breaking, to a larger cross-sectional area,” Pl.’s Mem. at 33. But the plaintiff’s proposed construction is convoluted and without intrinsic support, so the Court will reject it for several reasons.

First, the notion that the expandable cannula must have a “larger cross-sectional area” upon expansion is already captured by other terms in the asserted claims. E.g., '240 Patent col. 20 ll. 2-19 (“said expandable cannula comprising a longitudinally extending tubular sheath

¹⁴ The defendants’ desire to include the words “at least two” before the word “wires” is unnecessary, as the term “wires” itself connotes “at least two.” See Hr’g Tr. at 111:11-20. Because “wires” inherently means at least two wires, it would be redundant to have the words “at least two” precede the word “wires.”

formed of a material capable of being extended from a condition in which a longitudinally extending passage through the tubular sheath has a relatively small cross sectional size to a condition in which the passage has a relatively large cross sectional size upon expansion of said cannula from the contracted condition to the expanded condition” (emphasis added)); ’499 Patent col. 22 ll. 9-13 (“said longitudinally extending array of wires having a relatively small cross sectional size when said sheath is in the contracted condition and a relatively large cross sectional size when said sheath is in the expanded condition” (emphasis added)). Thus, the plaintiff’s proposed construction, which includes other claim terms, introduces redundancies into the asserted claims. See Rozbicki v. Chiang, ___ F. App’x ___, ___, 2014 WL 6434870, at *5 (Fed. Cir. 2014) (rejecting claim construction that did “not make any sense” or would “at least be redundant”); Digital-Vending Servs. Int’l, LLC v. Univ. of Phx., Inc., 672 F.3d 1270, 1275 (Fed. Cir. 2012) (“[C]laims are interpreted with an eye toward giving effect to all terms in the claim. In Phillips, [415 F.3d at 1314,] this court reinforced the importance of construing claim terms in light of the surrounding claim language, such that words in a claim are not rendered superfluous.” (internal citation and quotation marks omitted)); IGT v. Bally Gaming Int’l, Inc., 659 F.3d 1109, 1117 (Fed. Cir. 2011) (“Extracting a single word from a claim divorced from the surrounding limitations can lead construction astray.”); Lexion Med., 641 F.3d at 1356 (preferring “a claim interpretation that harmonizes the various elements of the claim to define a workable invention”).

Second, the plaintiff fails to cite any intrinsic evidence that supports importing a “without breaking” limitation into the disputed term. While the plaintiff points out that the specification teaches that certain “portions” of the expandable cannula are “resilient,” permitting it to return to its contracted position after expansion, Pl.’s Mem. at 35, “resilient” and “without breaking” are

not necessarily synonymous. And the plaintiff has cited no aspect of the specification or the prosecution history showing otherwise. The plaintiff appears to be attempting to narrow the scope of the claimed inventions through its proposed construction, so as to require the expandable cannulas to not only expand, but also retract to its unexpanded condition after expansion. See id. But the Court cannot accept the plaintiff’s construction as it would be impermissibly reading into the claims a limitation from the preferred embodiments. See, e.g., Callicrate v. Wadsworth Mfg., Inc., 427 F.3d 1361, 1368 (Fed. Cir. 2005) (importing limitation from single embodiment was error); Phillips, 415 F.3d at 1323 (noting that limitations should not be imported from the specification into the claims). The Court, therefore, adopts the plain and ordinary meaning of the terms “expandable/expanded/expanding.”

4. Leading End Portion(s)/Pointed End Portion

Disputed Terms	Plaintiff’s Proposal	Defendants’ Proposal
Leading End Portion(s) '730 Patent (claims 45, 51, 57)	Sections including the distal-most sharp tips	Plain and ordinary meaning
Pointed end portion '240 Patent (claims 1, 15) '499 Patent (claim 28)	Section including a sharp tip	Plain and ordinary meaning, or tapered end part

Close examination of the parties’ disputes regarding these terms reveals that the crux of these disputes is whether these terms should be construed in a manner such that the “leading end portion” of the cannula or the “pointed end portion” of the cannula is “sharp,” and thus capable of either cutting or severing body tissue. See Pl.’s Mem. at 38, 41. The patents-in-suit broadly claim leading end portions or pointed end portions of the cannula that can pierce body tissue. E.g., '730 Patent col. 26 ll. 2-4; '240 Patent col. 20 ll. 16-19; '499 Patent col. 22 ll. 39-42. Neither the claims nor the specifications of the patents-in-suit, however, explicitly place limitations on whether these portions of the cannula must be sharp. Although the specifications

of the patents-in-suit cited by the plaintiff discuss the use of sharp leading end portions and pointed end portions to pierce body tissue, the discussion is in the context of preferred embodiments. See Pl.’s Mem. at 40, 42. And contrary to settled law, the plaintiff has improperly imported limitations from the specifications of the patents-in-suit again.¹⁵ See, e.g., Callicrate, 427 F.3d at 1368; Phillips, 415 F.3d at 1323. Thus, the Court agrees with the defendants that these terms should be given their plain and ordinary meaning.

5. Integrally Formed as One Piece

Disputed Terms	Plaintiff’s Proposal	Defendants’ Proposal
Integrally formed as one piece ’240 Patent (claim 8)	Made together from the same material	Formed as a unit with other parts

The parties’ proposed constructions of these terms are vastly different. Essentially, the plaintiff’s construction would require that the wires and the sheath of the cannula be made from the same material, i.e., same composition, while the defendants’ construction would only require that the wires and the sheath be formed as a unit, i.e., that the wires and the sheath be integrated.

¹⁵ The plaintiff appears to conflate the issue of claim construction with others issues that are not currently before the Court: (1) infringement and (2) enablement. First, in light of the fact that the asserted claims require the ability to “pierce” before there can be infringement of these claims, it is difficult to see how the plaintiff’s accused products can infringe the asserted claims if the accused products are unable to “pierce” body tissue as the claims require. Whether an accused product with either a “leading end portion” or “pointed end portion” that is either “dull” or “blunt” can “pierce” body tissue as required in the asserted claims is a question of fact and invites the Court to engage in an infringement analysis that cannot be made at this juncture in the case. See, e.g., ADC Telecomms., Inc. v. Switchcraft, Inc., 281 F. App’x 989, 992 (Fed. Cir. 2008) (reasoning that a factual question of infringement existed as to whether a particular limitation was covered by the claims (citing Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co., 425 F.3d 1366, 1377 (Fed. Cir. 2005))). And the defendants are “not arguing [that] a claim requiring a ‘pointed end portion’ covers a device with a blunt end.” Defs.’ Reply at 23.

Second, whether the specifications “teach” that “dull” “leading end portions” and “pointed end portions” can cut or sever body tissue, Pl.’s Mem. at 40, is an enablement question that is also not currently before the Court, see, e.g., Ormco Corp. v. Align Tech., Inc., 498 F.3d 1307, 1318 (Fed. Cir. 2007) (explaining that a patent is invalid for lack of enablement where the “challenged patent fails to teach one of ordinary skill in the art how to make the invention”); Hill-Rom Servs., Inc. v. Stryker Corp., 755 F.3d 1367, 1374 (Fed. Cir. 2014) (“Courts should be cautious not to allow claim construction to morph into a mini-trial on validity. Claim terms should be given their plain and ordinary meaning to one of skill in the art at the relevant time and cannot be rewritten by the courts to save their validity.”), cert. denied, _ U.S. _, 135 S. Ct. 719 (2014).

Review of the intrinsic evidence strongly suggests that for several reasons the defendants' construction must prevail over the plaintiff's construction, which again seeks to import limitations from the specification of the '240 Patent.

First, according to the language of asserted claim 8 of the '240 Patent, the purpose of having the wires and the sheath "integrally formed" is "to interconnect" them. '240 Patent col. 20 ll. 51-54. This language is consistent with the defendants' proposed construction, more so than the plaintiff's proposal, as the "formation" of the wires and the sheath as "a unit" would ensure that the wires and sheath are interconnected. And second, portions of the '240 Patent specification also reveal that "integrally formed" alludes to the integration, as opposed to the composition, of the wires and the sheath. For example, the specification states:

The elastic sheath 18 is preferably secured to the wires 16 at both proximal and distal ends, to prevent the sheath's sliding off the wires during insertion and removal of the cannula 10. Rubber cement or cyanoacrylate or a similar adhesive can be used to bond the sheath 18 to the wires 16 as shown schematically at 24.

Id. col. 4 ll. 8-13 (emphasis added). And as another example, the specification notes:

Since the jackets 412 are integrally formed as one piece with the sheath 402, there is no precise line of demarcation between the jackets and the sheath. However, the jackets 412 extend inward from the sheath 402 toward the central axis 418 of the cannula 400 and cooperate with the sheath to enclose each of the cores 410. If desired, the jackets 412 could extend completely around the cores 410.

Id. col. 9. ll. 31-38 (emphasis added); see also id. col. 9 ll. 2-5 ("Since the jackets 412 are integrally formed as one piece with the sheath 402, the wires 404 are maintained in a parallel relationship with the longitudinal central axis 418 of the cannula 400." (emphasis added)); id. col. 15 ll. 5-7 ("The jacket 412b is integrally formed as one piece with the sheath 402b and cooperates with the sheath to enclose one of the cores 410b." (emphasis added)). Because the

intrinsic evidence supports the defendants' proposed construction, the Court construes the phrase "integrally formed" to mean "formed as a unit."¹⁶

IV. CONCLUSION

For the foregoing reasons, the Court construes the disputed claim terms in this case in the manner set forth above.¹⁷

SO ORDERED this 25th day of February, 2015.

REGGIE B. WALTON
United States District Judge

¹⁶ Adopting additional words from the defendants' proposed construction—"with other parts"—is unnecessary.

¹⁷ The Court has contemporaneously issued an Order consistent with this Memorandum Opinion.