

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

CYTONOME/ST, LLC,

Plaintiff,

v.

NANOCELLECT BIOMEDICAL, INC.,

Defendant.

Civil Action No. 19-cv-301-RGA

MEMORANDUM OPINION

Rodger D. Smith II, Anthony D. Raucci, MORRIS, NICHOLS, ARSHT & TUNNELL LLP, Wilmington, DE; Kirt S. O'Neill (argued), Daniel L. Moffett (argued), AKIN GUMP STRAUSS HAUER & FELD LLP, San Antonio, TX, Thomas W. Landers IV (argued), AKIN GUMP STRAUSS HAUER & FELD LLP, Houston, TX;

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May 26, 2020

/s/ Richard G. Andrews

**ANDREWS, U.S. DISTRICT JUDGE:**

Before the Court is the issue of claim construction of multiple terms in U.S. Patent No. 6,877,528 (“the ’528 patent”); U.S. Patent No. 8,623,295 (“the ’295 patent”), U.S. Patent No. 9,011,797 (“the ’797 patent”); U.S. Patent No. 9,339,850 (“the ’850 patent”); U.S. Patent No. 10,029,263 (“the ’263 patent”); U.S. Patent No. 10,029,283 (“the ’283 patent”); and U.S. Patent No. 10,065,188 (“the ’188 patent”). The Court has considered the Parties’ Joint Claim Construction Brief. (D.I. 66). The Court heard oral argument by videoconference on April 28, 2020. (D.I. 81).

## **I. BACKGROUND**

Plaintiff Cytonome filed the instant action on February 12, 2019, alleging infringement of seven asserted patents by Defendant NanoCollect. (D.I. 1). The asserted patents claim cell sorter devices. (D.I. 66 at 1-2).

## **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) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at \*1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324) (alteration in original). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction

analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks omitted).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1312–13 (citations and internal quotation marks omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314.

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “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 1317–19 (internal quotation marks omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per*

*Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GMBH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (citation and internal quotation marks omitted).

### III. CONSTRUCTION OF DISPUTED TERMS

1. “buffer” (’528 Patent, ’850 Patent)

- a. *Plaintiff’s proposed construction:*  
*Original:* “a physical structure that contains fluid and receives a pressure pulse”  
*Revised:* “a reservoir of fluid that absorbs a pressure pulse”
- b. *Defendant’s proposed construction:* indefinite or 35 U.S.C. § 112 ¶ 6  
  
*’528 Patent:*  
*Structure:* None  
*Function:* “for absorbing a pressure [pulse/variation]”  
  
*’850 Patent:*  
*Structure:* “[Buffer chamber/reservoir] 70a, buffer chamber 70b, buffer bubble valve 100a, buffer bubble valve 100b, or valve 100”  
*Function:* “for absorbing or dampening the pressure pulse”
- c. *Court’s construction:* “a reservoir of fluid that absorbs a pressure pulse”

I rejected Defendant’s proposals for the construction of “buffer” at the *Markman* hearing because I do not think that the term “buffer” is indefinite. (D.I. 81 at 31:1-10). I declined to adopt Plaintiff’s original proposed construction because it does not really define what a buffer is. (*Id.* at 31:10-19). I gave Plaintiff an opportunity to submit a revised proposal. (*Id.*). Plaintiff has done so and proposes that “buffer” means “a reservoir of fluid that absorbs a pressure pulse.” (D.I. 82 at 1). Plaintiff takes this definition from the prosecution history and substitutes “absorbs” for “receives” in its original definition, and replaces “physical structure” with the more descriptive term “reservoir.” (*Id.* at 1-2). This revised proposal uses more specific terms that are no longer in dispute. (*Id.* at 2). Plaintiff claims, and I agree, that these are not substantive

changes from its original proposed construction and that Plaintiff's revised construction remains consistent with the intrinsic record. (*Id.*).

Defendant contends that the inclusion of the word "fluid" in Plaintiff's construction is contradictory to the understanding of a person of ordinary skill in the art. (D.I. 84 at 1). The parties agreed that "fluid" refers both to gas and liquid. (D.I. 81 at 14:18-19; 28:19-24). During the *Markman* hearing, Defendant argued that the "buffer" requires a "compressible fluid which is a gas" in the reservoir. (D.I. 81 at 28:24-29:14). In a letter, Defendant reasserts this argument and points to several portions of the patents which describe the reservoir as being filled with gas. (D.I. 84 at 1-2). Plaintiff cites different portions of the specifications that show that the reservoir is "a chamber having a resilient wall or contains a compressible fluid such as a gas." (D.I. 82 at 3). Plaintiff's expert also states that a person of ordinary skill in the art would understand that a reservoir filled "with a compressible gas instead of a liquid" is only one example of a buffer design contemplated by the patents for adequate absorption of the pressure pulse. (D.I. 67, Ex. H at ¶ 52).

While Defendant's cited examples demonstrate that a reservoir can be filled with gas, I am not convinced that they indicate that the buffer reservoir can only be filled with a "compressible fluid." Construing the term to require that the fluid which fills the buffer be compressible would incorrectly incorporate a narrowing limitation into the construction. Thus, I construe "buffer" to mean "a reservoir of fluid that absorbs a pressure pulse."

2. "reservoir"

- a. *Plaintiff's proposed construction*: "a physical structure that contains fluid" or plain and ordinary meaning
- b. *Defendant's proposed construction*: Indefinite or 35 U.S.C. § 112 ¶ 6  
*Structure*: the second side passage 174b and the second bubble valve 10b  
*Function*: "for dampening or absorbing a pressure pulse propagated across the flow channel"

Or, “the physical structure of a reservoir operatively associated with the flow channel and structurally designed for dampening or absorbing a pressure pulse propagated across the flow channel”

c. *Court’s construction*: plain and ordinary meaning

At the *Markman* hearing, I construed “reservoir” to have its plain and ordinary meaning. (D.I. 81 at 32:9-19). The term is not a nonce word, and Defendant has not overcome the presumption that “reservoir” is not a means-plus-function term.

3. “absorbing”

a. *Plaintiff’s proposed construction*: plain and ordinary meaning

b. *Defendant’s proposed construction*: “to receive without recoil or echo”

c. *Court’s construction*: plain and ordinary meaning

At the *Markman* hearing, I construed “absorbing” to have its plain and ordinary meaning. (D.I. 81 at 42:17-43:6).

4. “pressure pulse”

a. *Plaintiff’s proposed construction*: plain and ordinary meaning

b. *Defendant’s proposed construction*: “a unidirectional flow to the [microchannel/supply duct]”

c. *Court’s construction*: plain and ordinary meaning

Defendant argues that a person of ordinary skill in the art, in light of the claims and specifications, would understand the “pressure pulse” to “only move[] in one direction.” (D.I. 66 at 18). Defendant points to claim 1 of the ’263 patent to show that the patents contemplate directionality of the pressure pulse. (*Id.* at 19). The claim recites “a transient pressure pulse in a direction substantially perpendicular to a flow direction of the fluidic stream of particles.” (’263 patent, col. 14:4-9).

Defendant also argues that Figure 6 of the ’850 patent is inoperable if the “plunger” does not create a “unidirectional flow.” (D.I. 66 at 21). Defendant first introduced the argument that

a non-unidirectional flow would render the embodiment of Figure 6 inoperable through an expert declaration in its sur-reply. (*See id.*). I therefore gave Plaintiff a chance to submit a responsive supplemental expert declaration. (D.I. 81 at 60:25-61:25). Unsurprisingly, Plaintiff's expert's opinion is that a person of ordinary skill in the art would understand that the embodiment illustrated in Figure 6 "is not unidirectional and is also operable." (D.I. 82-1 at 7).

I am not persuaded that the patents require the pressure pulse to be only in one direction. To the extent that any directionality of the pressure pulse is recited by the claims, it would be inappropriate to add that limitation into the construction. Thus, I construe "pressure pulse" to have its plain and ordinary meaning.

5. "otherwise sealed"

- a. *Plaintiff's proposed construction*: a reservoir or chamber that is "otherwise sealed [from]" is a reservoir or chamber that is not open to an exterior environment
- b. *Defendant's proposed construction*: "otherwise closed off from fluid connection"
- c. *Court's construction*: "sealed in all other aspects"

At the *Markman* hearing, both sides agreed that I do not need to construe "otherwise sealed" for the '797 patent because the claim itself recites "otherwise sealed from an exterior environment." (D.I. 81 at 65:9-12; *see* '797 patent, col. 14:9-10). Regarding the '283 patent, I stated at the hearing that "otherwise sealed" is a broad term that doesn't require other limitations in its construction. (D.I. 81 at 75:23-76:5). A person of ordinary skill in the art could reasonably understand the plain and ordinary meaning of the term to be that the "first chamber" in claim 1, and the "second chamber" in claim 6, are sealed in all other aspects. I therefore construe "otherwise sealed" to mean "sealed in all other aspects."

6. "selectively applying"

- a. *Plaintiff's proposed construction*: plain and ordinary meaning

- b. *Defendant's proposed construction:* indefinite
- c. *Court's construction:* plain and ordinary meaning

At the *Markman* hearing, I construed “selectively applying” to have its plain and ordinary meaning. (D.I. 81 at 76:18-25). I do not think it is indefinite.

7. “an actuator connected to the first side channel”

- a. *Plaintiff's proposed construction:* plain and ordinary meaning
- b. *Defendant's proposed construction:* indefinite
- c. *Court's construction:* plain and ordinary meaning

At the *Markman* hearing, I construed “an actuator connected to the first side channel” to have its plain and ordinary meaning. (D.I. 81 at 83:7-11). I do not think it is indefinite.

8. “microsorter having a switching region and a microfluidic channel formed in the microfluidic chip fluidically coupled to a sample input[,] a keep output, a waste output, and the switching region”

- a. *Plaintiff's proposed construction:* plain and ordinary meaning
- b. *Defendant's proposed construction:* indefinite
- c. *Court's construction:* plain and ordinary meaning

At the *Markman* hearing, I construed “microsorter having a switching region and a microfluidic channel formed in the microfluidic chip fluidically coupled to a sample input[,] a keep output, a waste output, and the switching region” to have its plain and ordinary meaning. (D.I. 81 at 92:17-93:3). I do not think it is indefinite.

9. “from the stream of particles”

- a. *Plaintiff's proposed construction:* plain and ordinary meaning
- b. *Defendant's proposed construction:* “from the continuous moving procession of fluid and particles”
- c. *Court's construction:* plain and ordinary meaning



At the *Markman* hearing, I construed “from the stream of particles” to have its plain and ordinary meaning. (D.I. 81 at 95:24-96:3).

10. “carrier fluid”

- a. *Plaintiff’s proposed construction*: “a sheath of compatible liquid surrounding a particle for carrying one or more particles through a duct or channel”
- b. *Defendant’s proposed construction*: “fluid containing the particles moving through the system”
- c. *Court’s construction*: plain and ordinary meaning

I rejected Plaintiff’s proposed construction at the *Markman* hearing because I do not think that the postdated lexicography of the ’850 patent can retroactively apply to the term in the ’528 patent. (D.I. 81 at 98:7-12). Defendant argues that I should adopt its proposal because the construction “mak[es] clear that the stream of particles is a different laminar flow system in the system from the carrier fluid.” (*Id.* at 105:7-9). Whether the stream of particles is distinct from the carrier fluid appears to be a dispute between the parties. (*Id.* at 100:15-102:21). Defendant offered that substituting “conveying” for “containing” in its proposal may be a more clear and accurate construction. (*Id.* at 106:12-14). I do not see how either construction resolves the dispute about the distinction between the stream of particles and the carrier fluid, or how either is helpful over the plain and ordinary meaning. Further, both of Defendant’s proposed constructions invite redundancy as the claims recite “a channel for conveying a stream of particles in a carrier fluid.” (’528 patent, col. 15:16-17, 16:4-5). Thus, I construe “carrier fluid” to have its plain and ordinary meaning.

#### IV. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion suitable for submission to the jury.