

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

CYTONOME/ST, LLC,)	CASE NO.: 1:19-cv-00301-RGA
)	
Plaintiff/Counterclaim-Defendant,)	
)	
v.)	
)	
NANOCELLECT BIOMEDICAL, INC.,)	
)	DEMAND FOR JURY TRIAL
Defendant/Counterclaim-Plaintiff,)	
)	
)	

DEFENDANT’S PROPOSED CLAIM CONSTRUCTIONS

Pursuant to the Scheduling Order (D.I. 15), entered on May 8, 2019, Defendant/Counterclaim-Plaintiff NanoCelect Biomedical, Inc. (“NanoCelect”) hereby provides a list of the parties’ proposed claim constructions for claim terms from U.S. Patent Nos. 6,877,528 (“’528”), 8,623,295 (“’295”), 9,011,797 (“’797”), 9,339,850 (“’850”), 10,029,263 (“’263”), 10,029,283 (“’283”), and 10,065,188 (“’188”).

NanoCelect bases these proposals on its current knowledge, understanding, and beliefs as to the facts and information available as of the date of this identification. NanoCelect has not yet completed its investigation, collection of information, discovery, or analysis related to this action. NanoCelect reserves the right to identify additional terms for construction or provide alternative constructions for the identified terms. Furthermore, NanoCelect reserves the right to propose and/or identify additional terms for construction, or propose alternative constructions, based on the claim terms and constructions proposed by Cytonome or as a result of discussions with Cytonome regarding the identification and number of claim terms to propose for construction.

Although the chart below lists only those claims in which the listed claim terms or phrases actually appear, applicable claims include any claims that depend from the listed claim. The listed claim terms and phrases are intended to include substantively similar variations of the terms; however, such variations and the asserted claims in which they appear may be omitted from the chart for the sake of efficiency. To the extent a claim term was identified in NanoCollect's October 11, 2019 disclosure of claim terms for construction that is not present below, NanoCollect proposes those terms should be given their plain and ordinary meaning to a person of ordinary skill in the art ("POSA") at the time of the claimed invention in light of the specification and prosecution history. Where a proposed claim term/phrase incorporates another term herein independently construed, NanoCollect reserves all rights to incorporate the independent construction.

NanoCollect is available to meet and confer for the purposes of limiting the terms in dispute by narrowing or resolving differences and facilitating the preparation of a Joint Claim Construction Chart.

Defendant/Counterclaim-Plaintiff's Proposed Terms and Phrases for Construction

No.	Patent Claims	Claim Terms	Proposed Construction
1	'528, cls. 1, 2, 10	"regulating" and variants "regulate"	"to adjust the rate of"
2	'528 cls. 1, 17	"valve"	"a component that regulates fluid flow"
3	'528 cls. 1, 9, 17, 18, 22 '295 cls. 1, 4, 9 '797 cls. 1, 3-7, 12, 18 '850 cl. 1 '263 cls. 1, 15, 19 '188 cls.	"absorbing" and variants including "absorbs"	"to receive without recoil or echo"
4	'528 cls. 2, 8, 10, 17, 18, 20, 22 '295 cls. 16, 17 '850 cls. 1, 3 '188 cls. 1, 12, 17	"deflect" and variants "deflectable," "deflection," "deflecting"	"remove" and variants

5	'528 cls. 4 '263 cls. 1, 15, 19 '188 cls. 12, 17	"generate" and variants "generated," "generating"	"create" and variants
6	'528 cls. 7, 8	"movable membrane"	Indefinite
7	'528 cl. 9	"a second plate for enclosing the microchannel bonded to the first plate having a first aperture formed on a first side of the groove"	"A second plate having an aperture formed on it for enclosing the microchannel bonded to the first plate"
8	'528 cl. 17	"bubble valve"	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: A structure including a gas-filled reservoir; a channel in communication with a channel through which a stream of particles in a carrier fluid passes, wherein the carrier fluid forms a meniscus in the side channel adjacent to the gas-filled reservoir; an actuator for deflecting the meniscus to create a pressure pulse to selectively deflect a particle having the predetermined characteristic from the stream of particles; and a second reservoir for absorbing the pressure pulse Function: "for separating particles having a predetermined characteristic from particles not having a predetermined characteristic"
9	'528 cls. 17, 18, 20, 22 '850 cl. 1 '263 cls. 1, 13-15, 19 '188 cls. 1, 12	"stream of particles"	"a continuous moving procession of fluid and particles carried within the fluid"
10	'528 cls. 17, 18, 22 '850 cl. 3	"carrier fluid" and variants "carrier liquid"	"fluid containing the particle(s) moving through the system"
11	'528 cls. 17, 18, 19, 22 '295 cls. 1-4, 9, 10 '797 cls. 1-5, 7, 12-16, 18, 19 '850 cls. 1, 7, 8, 12 '263 cls. 1, 5, 6, 15, 16, 19, 20 '188 cls. 1, 12, 17	"pressure pulse"	"a unidirectional flow to the [microchannel/supply duct]"

12	'528 cls. 17, 18, 22 '188 cls. 1, 12	"from the stream of particles"	"from the continuous moving procession of fluid and particles carried within the fluid"
13	'528 cl. 17 '850 cl. 3 '263 cl. 18	"the side channel"	Indefinite
14	'528 cls. 18, 22, 24, 26	"buffer"	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: None disclosed in specification Function: "for absorbing a pressure [pulse/variation]"
15	'850 cls. 1, 4, 5, 9, 11, 12	"buffer"	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 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"
16	'528 cl. 18 '850 cl. 1	"selectively applying"	Indefinite
17	'528 cl. 22	"an actuator connected to the first side channel"	Indefinite
18	'528 cls. 17, 22 '850 cls. 3, 4	"in communication"	(1) "fluidically connected" or (2) "in fluidic communication"
19	'528 cls. 25, 26	"sealed reservoir"	"reservoir closed off from fluid connection"
20	'528 cl. 1	"a second reservoir for absorbing a pressure variation in the microchannel induced by the actuator"	35 U.S.C. 112 ¶ 6 Structure: The second side passage 174b and second bubble valve 10b

			Function: “for absorbing a pressure variation in the microchannel induced by the actuator”
21	'528 cl. 9	“a second reservoir formed on a second side of the groove opposite the first reservoir for absorbing pressure variations in the groove”	“a second reservoir formed on the second plate on a second side of the groove opposite the first reservoir for absorbing pressure variations in the groove”
22	'528 cl. 25	“the actuator comprises air trapped in a sealed reservoir”	“the actuator comprises a sealed gas-filled reservoir”
23	'295 cl. 1	“a first reservoir <i>operatively associated with the flow channel and adapted</i> for dampening or absorbing a pressure pulse propagated across the flow channel”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 174b and second bubble valve 10b Function: “for dampening or absorbing a pressure pulse propagated across the flow channel” or (2) “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”
24	'797 cl. 1	“dampening or absorbing the pressure pulse using a first reservoir in fluid communication with the microfluidic flow channel”	(1) Indefinite or (2) “to meaningfully dissipate or to receive the unidirectional flow to the microchannel without recoil or echo using a first reservoir in fluid communication with the <u>microfluidic flow channel</u> ”
25	'295 cls. 1, 2 '797 cls. 13, 14 '263 cls. 5, 15, 16, 20	“operatively associated with”	“functionally connected to exert a force on”

26	'295 cls. 1, 4, 9 '797 cls. 1, 3-7, 12, 18 '850 cl. 1 '263 cls. 1, 15, 19	"dampen" and variants "dampening"	(1) Indefinite or (2) "to meaningfully dissipate"
27	'295 cl. 1 '797 cl. 5 '263 cls. 1, 15, 16, 19	"propagated" and variants "propagating"	"transmitted" and variants
28	'295 cl. 2 '797 cl. 13	"pressurizer"	"actuator"
29	'295 cl. 9 '797 cls. 4, 12	"first reservoir include(s) a resilient wall"	(1) Indefinite or (2) "a first reservoir including a flexible physical structure to allow flow of liquid into the second side passage"
30	'295 cls. 1, 10 '797 cls. 3, 5, 7, 15	"facilitate"	"assists to bring about"
31	'797 cl. 5 '283 cls. 1, 6	"otherwise sealed" and variants "otherwise sealed from"	"otherwise closed off from fluid connection"
32	'797 cls. 6, 7, 12	"resilient properties"	(1) Indefinite or (2) "flexible physical properties of a structure allowing flow of liquid into the second side passage"
33	'850 cl. 1	"configured to fluidically co-operate with the actuator"	"configured to fluidically react with the actuator"
34	'850 cl. 3	"a sealed chamber positioned adjacent to the side channel, wherein the carrier liquid forms a meniscus in the side channel to separate the sealed chamber from the carrier liquid"	"a chamber closed off from fluid connection positioned adjacent to the side channel, wherein the carrier liquid forms a meniscus in the side channel to separate the sealed chamber from the carrier liquid"
35	'850 cl. 3	"modifying"	"adjusting the level of"
36	'850 cl. 5	"movable wall"	"a wall that has two or more positions"
37	'263 cls. 1, 2, 5-8, 12, 13, 15, 17-21	"switching device" and variants "switch component"	(1) Indefinite or

			(2) “a component separate from the actuator for switching”
38	'188 cl. 15	“switch element”	(1) Indefinite or (2) “a component separate from the actuator for switching”
39	'263 cls. 1, 19	“operatively coupled”	“linked to exert a force on”
40	'263 cls. 1, 14, 19	“from the fluidic stream of particles”	“from the stream of fluid carrying the particles”
41	'850 cl. 9 '263 cls. 1, 13, 15, 19 '283 cls. 1, 5	“upstream”	“in the direction against the flow”
42	'263 cls. 1, 15, 16, 19	“downstream”	“in the direction with the flow”
43	'263 cls. 2, 12	“integrally provided on”	“formed together on”
44	'263 cls. 1, 2, 12, 15	“activate” and variants “activated”	“turned on to take action”
45	'263 cls. 5, 16, 20	“originate” and variants “originating”	“create” and variants
46	'263 cls. 2, 12	“external actuator”	“an actuator not fluidically connected to the system”
47	'263 cl. 12	“operatively engage”	“to exert a force on, engage”
48	'263 cls. 13, 15	“pressure wave”	“a unidirectional flow to the supply duct”
49	'263 cl. 15	“deactivating”	“turned off from taking action”
50	'263 cl. 18	“not a flow through channel”	“a channel through which the carrier fluid does not enter”
51	'850 cls. 10, 11	“non-flow-through chamber”	“a chamber through which the carrier fluid does not enter”
52	'188 cl. 1	“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”	Indefinite
53	'188 cl. 1	“wherein the switching region, when actuated by the actuator upon detection of a predetermined	“wherein the switching region, when actuated by the actuator upon detection of a predetermined characteristic of a selected particle, directs a unidirectional flow to the

		characteristic of a selected particle, directs a pressure pulse across the microfluidic channel to deflect the selected particle from the stream of particles”	microfluidic channel and across the microfluidic channel to remove the selected particle from the continuous moving procession of fluid and particles carried within the fluid”
54	’188 cl. 12	“the microfluidic chip including at least one 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, the switching region”	“the microfluidic chip including at least once microsorter having a switching region, and a microfluidic channel formed in the microfluidic chip fluidically linked to a sample input a keep output, a waste output, the switching region”
55	’188 cls. 1, 12, 17	“fluidically coupled”	“fluidically linked”
56	’188 cls. 1, 12, 17	“actuator external to the microfluidic chip” and variants “actuator is external to the particle processing assembly,” “pressure pulse generator external to the microfluidic particle sorting component”	“an actuator completely outside [the microfluidic chip/particle processing assembly/microfluidic particle sorting component]”
57	’188 cls. 17	“operatively interfacing”	“interfacing to exert a force on”

Plaintiff/Counterclaim-Defendant’s Proposed Terms and Phrases for Construction

58	’528 cls. 1, 7, 9, 17	“first reservoir”	Indefinite
59	’528 cl. 1	“a second reservoir for absorbing a pressure variation”	<p>35 U.S.C. 112 ¶ 6</p> <p>Structure: The second side passage 174b and second bubble valve 10b</p> <p>Function: “for absorbing a pressure variation”</p>
60	’528 cl. 9	“a second reservoir . . . for absorbing pressure variations”	<p>35 U.S.C. 112 ¶ 6</p> <p>Structure: The second side passage 174b and second bubble valve 10b</p> <p>Function:</p>

			“for absorbing pressure variations”
61	'528 cl. 17	“a second reservoir for absorbing the pressure pulse”	35 U.S.C. 112 ¶ 6 Structure: The second side passage 174b and second bubble valve 10b Function: “for absorbing the pressure pulse”
62	'528 cls. 18, 22	“a buffer . . . for absorbing the pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 174b and second bubble valve 10b Function: “for absorbing the pressure pulse”
63	'528 cls. 1, 2, 17 '295 cls. 5-8, 11-15 '797 cls. 1, 5, 8-11, 18 '850 cls. 9-11 '263 cls. 7, 21 '283 cls. 1, 4, 5	“fluid”	“liquid”
64	'295 cl. 1	“first reservoir . . . adapted for dampening or absorbing a pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 24b and the second bubble valve 100b, or the buffer chamber 70b Function: “adapted for dampening or absorbing a pressure pulse”
65	'295 cl. 1 '797 cl. 14	“a second reservoir . . . adapted for generating the pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: None disclosed in specification Function:

			“adapted for generating the pressure pulse”
66	’797 cls. 1, 18	“dampening or absorbing the pressure pulse using [a/the] first reservoir”	(1) Indefinite or (2) “to meaningfully dissipate or to receive the unidirectional flow to the microchannel without recoil or echo using [a/the] first reservoir”
67	’797 cl. 5	“a first reservoir . . . adapted for dampening or absorbing a pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 174b and second bubble valve 10b Function: “for dampening or absorbing a pressure pulse”
68	’850 cl. 1	“a buffer . . . for absorbing or dampening the pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 24a and the second bubble valve 100a, the buffer chamber 70a, or valve 100 Function: “for absorbing or dampening the pressure pulse”
69	’850 cls. 3, 4, 10, 11	“chamber”	Plain and ordinary meaning
70	’263 cl. 1	“the transient pressure pulse is not generated downstream of the switching region”	“the transient unidirectional flow to the supply duct is not generated in the direction with the flow of the switching region”
71	’263 cls. 1, 19	“a reservoir adapted for dampening or absorbing the transient pressure pulse”	(1) Indefinite or (2) 35 U.S.C. 112 ¶ 6 Structure: The second side passage 24b and the

			<p>second bubble valve 100b, buffer chamber 70b, the buffer bubble valve 100b, or the bubble valve 100</p> <p>Function: “for dampening or absorbing the transient pressure pulse”</p>
72	'263 cls. 5, 20	“a reservoir . . . adapted for originating the transient pressure pulse”	<p>(1) Indefinite</p> <p>or</p> <p>(2) 35 U.S.C. 112 ¶ 6</p> <p>Structure: The first bubble valve 100a or the bubble valve 100</p> <p>Function: “for originating the transient pressure pulse”</p>
73	'263 cl. 15	“a reservoir . . . to dampen or absorb a transient pressure pulse”	<p>(1) Indefinite</p> <p>or</p> <p>(2) 35 U.S.C. 112 ¶ 6</p> <p>Structure: The second side passage 24b and the second bubble valve 100b, buffer chamber 70b, the buffer bubble valve 100b, or the bubble valve 100</p> <p>Function: “to dampen or absorb a transient pressure pulse”</p>
74	'263 cl. 16	“a reservoir . . . to originate the transient pressure pulse”	<p>(1) Indefinite</p> <p>or</p> <p>(2) 35 U.S.C. 112 ¶ 6</p> <p>Structure: The first bubble valve 100a or the bubble valve 100</p> <p>Function: “to originate the transient pressure pulse”</p>
75	'283 cl. 1, 4	“a first chamber”	Indefinite
76	'283 cl. 5	“a second chamber”	Indefinite

77	'188 cl. 11	"a unique identifier"	Plain and ordinary meaning
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Dated: October 25, 2019

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CERTIFICATE OF SERVICE

I, Ian R. Liston, hereby certify that on October 25, 2019, I caused the foregoing DEFENDANT'S PROPOSED CLAIM CONSTRUCTIONS to be served via electronic mail upon the following counsel of record:

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