

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CYTONOME/ST, LLC,)
)
Plaintiff,)
) C.A. No. 19-301-RGA
v.)
)
NANOCELLECT BIOMEDICAL, INC.,)
)
Defendant.)

J. Caleb Boggs Courthouse
844 North King Street
Wilmington, Delaware

Tuesday, April 28, 2020
10:04 a.m.
Markman Hearing
Videoconference

BEFORE: THE HONORABLE RICHARD G. ANDREWS, U.S.D.C.J.

APPEARANCES:

MORRIS NICHOLS ARSHT & TUNNELL LLP
BY: ANTHONY D. RAUCCI, ESQUIRE
BY: RODGER D. SMITH, II, ESQUIRE

-and-

AKIN GUMP STRAUSS HAUER & FELD LLP
BY: KIRT S. O'NEILL, ESQUIRE
BY: DANIEL L. MOFFETT, ESQUIRE
BY: THOMAS W. LANDERS, IV, ESQUIRE

1 APPEARANCES CONTINUED:

2 WILSON SONSINI GOODRICH & ROSATI
3 BY: IAN R. LISTON, ESQUIRE
4 BY: DOUGLAS CARSTEN, ESQUIRE
5 BY: ADAM W. BURROWBRIDGE, ESQUIRE

6 For the Defendant

7 Also Present:

8 Miss Cynthia Biron

9 *** PROCEEDINGS ***

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THE COURT: Good morning. This is Judge Andrews
in a Markman hearing. I'm looking at a screen that shows
five faces, but I understand there are more people on the
call.

Can someone just signal to me that they can hear
me?

(Everyone said, Yes, Your Honor.)

THE COURT: All right. So I've read the
briefing and thought about the issues that you've raised. I
have the letter that you sent saying which order you would
like to do these terms in which is fine by me, though it may
take a little bit of extra time on my part as I try to jump
back and forth in your brief because that's where my notes
are. And I have received plaintiff's slide deck which I've
kind of glanced through, but it occurred to me as I was
setting up for this that I'm one electronic device short of
being able to keep the pictures or keep the Skype meeting,

10:05:57 1 look at my own notes, and look at the plaintiff's slides.

10:06:07 2 So I don't know how much practice you have at this and
10:06:11 3 whether or not if there's a particularly important slide,
10:06:14 4 you can just show it to me by Skype.

10:06:20 5 So why don't we start off. I do have a court
10:06:26 6 reporter on the line; is that right?

10:06:26 7 THE REPORTER: Yes, Judge.

10:06:28 8 THE COURT: And my deputy clerk is on the line?

10:06:30 9 DEPUTY CLERK: Yes, Judge.

10:06:31 10 THE COURT: Okay. So then why don't we have for
10:06:33 11 the plaintiff who's -- I don't necessarily see anybody other
10:06:41 12 than Mr. Liston that I recognize. Who's representing the
10:06:46 13 plaintiff?

10:06:48 14 MR. RAUCCI: Your Honor, this is Anthony Raucci
10:06:50 15 at Morris Nichols, and we also have Rodger Smith on from
10:06:54 16 Morris Nichols on behalf of plaintiff. And our co-counsel
10:06:57 17 on the line is Kirt O'Neill, Dan Moffett, and Thomas Landers
10:07:04 18 from Akin Gump.

10:07:05 19 THE COURT: Okay. All right. And for the
10:07:09 20 defendant, Mr. Liston.

10:07:12 21 MR. LISTON: Good morning, Your Honor. Ian
10:07:14 22 Liston for Wilson Sonsini from NanoCollect, and with me on
10:07:17 23 the video conference are Doug Carsten and Adam Burrowbridge.

10:07:23 24 THE COURT: Okay. I take it Mr. Burrowbridge is
10:07:29 25 the one who's signed in as friendly as Adam; right?

10:07:35 1 MR. LISTON: That's correct, Your Honor. May I
10:07:38 2 ask you a question, Your Honor?

10:07:39 3 THE COURT: Yes.

10:07:40 4 MR. LISTON: You mentioned receiving plaintiff's
10:07:42 5 slide deck. Did you receive defendant's slide deck as well?

10:07:45 6 THE COURT: No.

10:07:49 7 MR. LISTON: All right. I'll check with Nicole.
10:07:51 8 She confirmed that she received them yesterday, so I'll make
10:07:54 9 sure that she has those.

10:07:55 10 THE COURT: You know, wait. Just hold on a
10:07:59 11 second before you start raising the roof here because it's
10:08:01 12 possible she sent them to me, and I didn't realize that
10:08:07 13 there were two attachments rather than just one. Hold on a
10:08:11 14 minute.

10:08:15 15 No, actually I got something from her yesterday,
10:08:18 16 plaintiff's slides for Markman. Hold on a second.

10:08:31 17 No, I didn't get anything from her, so I'm not
10:08:33 18 sure what happened there. Anyhow, should we proceed, I
10:08:42 19 guess, with plaintiff going first?

10:08:43 20 And I do remember from looking at the slides
10:08:47 21 that we're doing buffer first, but as we go along, remind me
10:08:51 22 so I can flip through my materials to find the right thing.

10:08:57 23 All right. So for plaintiff, let's go.

10:09:02 24 MR. O'NEILL: Your Honor, it's Kirt O'Neill. We
10:09:06 25 had, I think, by agreement decided to agree to spend five

10:09:09 1 minutes with you just generally discussing the background,
10:09:12 2 the technology, if you wish. If you don't, we'll go right
10:09:14 3 into the terms.

10:09:15 4 THE COURT: Well, I don't object to your
10:09:18 5 spending five minutes if you think it's helpful.

10:09:24 6 MR. O'NEILL: Okay. Then let me take a shot at
10:09:26 7 it. You stop me any time you feel like you've had enough.
10:09:29 8 And our presentation is slide driven, so we're going to put
10:09:32 9 them on the screen. And Mr. Landers is going to run the
10:09:36 10 presentation for us.

10:09:40 11 And Thomas, would you go to slide number 1?

10:09:43 12 MR. LANDERS: I still need access. I need to be
10:09:46 13 identified as a presenter. I don't have that capability
10:09:48 14 yet.

10:09:48 15 MR. O'NEILL: Uh-oh.

10:09:53 16 MR. RAUCCI: I'm trying to -- Judge Andrews, if
10:10:00 17 you're able to right click on the image of whoever you would
10:10:05 18 like to be the presenter.

10:10:07 19 MR. LANDERS: It looks like I just got named a
10:10:08 20 presenter. So let me go ahead and try to share my screen
10:10:11 21 and let me know if you see it. One second here.

10:10:37 22 THE COURT: Success.

10:10:39 23 MR. LANDERS: There we go.

10:10:40 24 MR. O'NEILL: Can everyone see the opening
10:10:42 25 slide?

10:10:43 1 THE COURT: I can.

10:10:44 2 MR. LANDERS: Perfect.

10:10:46 3 MR. O'NEILL: Get us to slide number 1,
10:10:47 4 Mr. Landers. I'm sorry. That's the index. Let's go to
10:10:56 5 number 2.

10:10:58 6 Your Honor, just by way of background, because
10:11:00 7 there are a number of patents in the case, I thought it
10:11:02 8 would be useful to illustrate the fact that six of the seven
10:11:05 9 patents in the case all derive from a common disclosure
10:11:09 10 filed back in 2002; and therefore, there's a ton of
10:11:12 11 commonality across the specifications, the drawings, and
10:11:17 12 even the language used in the claims.

10:11:19 13 There's a seventh patent in the case called the
10:11:22 14 '188 patent which is a little bit different, but only one of
10:11:25 15 the ten terms we're going to discuss today is unique to that
10:11:30 16 patent. The other nine terms all trace back to the common
10:11:34 17 disclosure, and those terms are used repetitively throughout
10:11:38 18 the six patents that are grouped here in the dark blue
10:11:43 19 boxes. And subsequently, they're all very closely related.

10:11:47 20 Could we see slide number 2, Mr. Landers?

10:11:52 21 The common disclosure, Your Honor, is really
10:11:53 22 centered around the basic configuration that we see here in
10:11:57 23 the patent figures. This figure is from the '297 or '295
10:12:01 24 patent, but you'll see the same figures in all the seven
10:12:04 25 patents. And it basically relates to three essential

10:12:10 1 components in the main flow channel in which these particles
10:12:13 2 are flowing and in carrier fluids, and then there's an
10:12:16 3 actuating chamber on the bottom that generates this pressure
10:12:20 4 pulse that goes across the channel, deflects the particle of
10:12:24 5 interest, and that pressure pulse is received by the buffer
10:12:26 6 which is the circle on top.

10:12:28 7 So that same common disclosure appears in all
10:12:32 8 six of the related patents that I've shown you. And the law
10:12:35 9 tells us that when you have the same parent application and
10:12:40 10 common disclosure that shares many common terms in the
10:12:42 11 claims, we must interpret the claims consistently across all
10:12:47 12 the patents.

10:12:47 13 And I think a big part of the briefing by both
10:12:50 14 parties is aimed at whether Your Honor should look to some
10:12:53 15 of the related patents and the portions of those
10:12:56 16 specifications and prosecution history to try to interpret
10:13:00 17 and understand terms in other patents. And the case law
10:13:03 18 tells us not only that we should, but we must.

10:13:07 19 Thomas, can we go to slide number 4?

10:13:12 20 And very briefly, Your Honor, this is the basic
10:13:14 21 structure of all the claims that we're going to be looking
10:13:17 22 at today. As I said, the microfluidic device, and we'll
10:13:21 23 talk a little bit about that and what that is, but the
10:13:23 24 microfluidic device contains three basic components in all
10:13:27 25 the claims we're going to talk about today: the main

10:13:29 1 channel through which everything flows, actuator, which is
10:13:32 2 on the bottom of the patent figure, and the buffer on top.

10:13:36 3 In reality, this microfluidic device mirrors the
10:13:40 4 patent very closely which you're looking at. In the upper
10:13:45 5 right-hand corner is an excerpt from a marketing brochure
10:13:48 6 from my client's product. They actually make this
10:13:52 7 microfluidic chip and put it inside a cell sorting machine
10:13:54 8 called a GigaSort. And in reality, it is that simple. It's
10:13:59 9 elegant, but it's simple. It's an actuator chamber that
10:14:03 10 deflects these particles as they're moving down the main
10:14:05 11 channel, and a damper chamber on top to dampen or dissipate
10:14:10 12 the pressure pulse so that the pressure pulse doesn't come
10:14:13 13 back into the main channel and just disrupt the sorting
10:14:16 14 process.

10:14:18 15 What do we mean by microfluidic device? Well,
10:14:21 16 I've got a photograph for you.

10:14:24 17 Mr. Landers, can we go to the next one?

10:14:25 18 On the screen now on slide number 4 -- excuse
10:14:29 19 me, 5, is an actual photograph of a microfluidic chip
10:14:34 20 constructed in accordance with the patents. This is from my
10:14:37 21 client's product called the GigaSort. And subsequently, we
10:14:40 22 call it the GigaSort microfluidic chip. It's microfluidic
10:14:44 23 because those fluidic channels are etched in silicon or
10:14:48 24 glass. So this is somewhat analogous to an electronic
10:14:53 25 circuit that on this chip you'll have a number of those

10:14:56 1 channels etched in glass. And it's called microfluidic
10:15:00 2 because microfluidics is a special branch of flow science,
10:15:04 3 and it's dealing with these channels that are typically a
10:15:07 4 hundred micrometers across. It's the width of a human hair.
10:15:12 5 And at those dimensions, the fluid flow through those
10:15:16 6 channels will be laminar in nature meaning not turbulent.

10:15:20 7 So the fluid doesn't slush around and develop
10:15:24 8 vortexes or cavities. It kind of moves through there like a
10:15:28 9 ribbon of fluid without any turbulence. And that's because
10:15:30 10 of the very small scale that we're operating at.

10:15:33 11 That chip right there, that is an actual
10:15:35 12 photograph. That's a person's fingers holding the chip.
10:15:38 13 The chip is about two and a half or three inches wide. And
10:15:40 14 on that particular chip, these sorting channels are
10:15:44 15 parallelized. They are 72 of the sorting channels that we
10:15:49 16 saw in the patent where you have a flow channel and the
10:15:52 17 buffer in the actuator. So this is a highly parallelized
10:15:57 18 system in the commercial embodiment that's useful for
10:16:00 19 increasing your cell throughput, and it's a very, very fast
10:16:05 20 chip.

10:16:06 21 Can we go to the next one, Thomas?

10:16:11 22 Slide 6, Your Honor. I have just a couple more
10:16:12 23 of these, but just to let you know, there are a number of
10:16:15 24 patents, and one of the reasons there are several patents is
10:16:17 25 that there are some differences in the disclosures and the

10:16:21 1 claims between each of these. The differences that aren't
10:16:24 2 really pertinent to the case because they talk, for example,
10:16:27 3 about parallelizing the chip. There are claims to a
10:16:31 4 parallelized chip, but they're not at issue in the case.
10:16:34 5 But this is just to let you know how the patents got
10:16:37 6 proliferated and in light over some applications.

10:16:41 7 So this is an example of a figure from the '850
10:16:44 8 patent to a parallel sorting system. But again, the claims
10:16:48 9 are not in the case. I show this to you just by way of
10:16:51 10 explanation as to why there are numerous patents.

10:16:54 11 Can we go to the next one, Thomas? Slide 7.

10:16:59 12 Some of the claims in the case, Your Honor,
10:17:03 13 actually do relate to particularized configurations of this
10:17:08 14 flow sorting channel. Some of the claims in the patent, for
10:17:11 15 example, relate to a cartridge format for the chip so that
10:17:16 16 the chip is removable from the sorting machine. These chips
10:17:19 17 are actually disposable because in practice when you run one
10:17:23 18 cell sample through them, biological sample, the chip may be
10:17:27 19 contaminated, and you can't reuse it. So you want to take
10:17:29 20 it out of a machine, dispose of it, and quickly insert and
10:17:33 21 align a new chip. And so they're made there, these
10:17:36 22 cartridges.

10:17:37 23 And indeed, some of the patent claims relate to
10:17:42 24 the use of a cartridge. In this particular claim, it's
10:17:45 25 phrased as operatively interfacing the microfluidic particle

10:17:49 1 sorting component with an operating machine. And in
10:17:54 2 layman's terms, that means put the cartridge into the
10:17:56 3 sorting machine.

10:17:57 4 And then, finally, my last slide on this,
10:18:00 5 Thomas, some of the claims also relate to the overall
10:18:04 6 machine. So there would be a machine with a cartridge
10:18:07 7 inside it, and the cartridge will contain the microfluidic
10:18:11 8 chip.

10:18:11 9 Claim 17 of the '188 patent is an example of
10:18:15 10 that type of claim. It recites a method, but the method
10:18:19 11 includes inserting the particle sorting -- inserting the
10:18:22 12 particle sorting component. That's that cartridge operating
10:18:26 13 the operating machine. That's a sorter like you see here in
10:18:29 14 the photograph, and then removing the cartridge when you're
10:18:33 15 done.

10:18:33 16 So the operating machine, there would be the
10:18:35 17 entire sorter. What you're looking at there is a photograph
10:18:39 18 of my client's commercial product called the GigaSort. The
10:18:42 19 photograph is tiny, but in reality it's a large machine.
10:18:45 20 That cabinet is almost six feet high, four feet wide and
10:18:49 21 three feet deep. Embedded in it will be one of those little
10:18:53 22 three-inch chips which is sort of the heart of the system,
10:18:56 23 but you need all that extra space to house all the optics,
10:18:59 24 the lasers, the electronics, the circuitry that's necessary
10:19:03 25 to do all the complex calculations to analyze the data, and

10:19:07 1 sort these machines, and sort these cells, and figure out
10:19:11 2 which cell needs to be diverted into the keep receptacle and
10:19:15 3 which cell needs to be sent to the waste receptacle because
10:19:20 4 you're not interested in it.

10:19:21 5 This machine is a million-dollar machine, Your
10:19:24 6 Honor. It has one of those chips in there. That's a
10:19:26 7 72-channel parallelized chip. So this gets to be very
10:19:29 8 complex and expensive stuff, but I did want to show you the
10:19:33 9 machine. Even though in the patents and the claim
10:19:35 10 terminology we're talking about today, we're really going to
10:19:38 11 be focused on the actuating chamber, the buffer chamber, and
10:19:42 12 then the main flow channel where the cells flow.

10:19:46 13 So that's kind of the background of the
10:19:48 14 technology, and I hope an explanation of how the patents are
10:19:50 15 related, and why there are so many patents in the case. But
10:19:54 16 as I said, nine of the ten terms we're going to talk about
10:19:57 17 today all relate to that original common disclosure.

10:20:01 18 The sole exception is the term microsorter which
10:20:05 19 is unique to the '188 patent. That patent is kind of the
10:20:10 20 odd duck because it has a little bit of difference in the
10:20:13 21 disclosure. But all six of the others are very closely
10:20:17 22 related, and so we're going to be looking across
10:20:22 23 specifications and across the various prosecution histories
10:20:25 24 to inform our understanding of what terms mean in these six
10:20:29 25 patents.

10:20:29 1 THE COURT: All right. Thank you.

10:20:32 2 MR. O'NEILL: Mr. Moffett, I think, is going to
10:20:37 3 handle the first term for us which is buffer.

10:20:40 4 THE COURT: All right.

10:20:41 5 MR. MOFFETT: I assume we're going to give
10:20:46 6 NanoCollect the opportunity for background, or would that
10:20:48 7 happen after we address buffer?

10:20:53 8 MR. CARSTEN: I'm happy to do it either way.

10:20:57 9 THE COURT: Well, then why don't you go ahead,
10:21:00 10 Mr. Moffett.

10:21:01 11 MR. MOFFETT: As Mr. O'Neill said, my name is
10:21:03 12 Daniel Moffett. I will be addressing the term buffer for
10:21:07 13 Cytonome. Buffer does appear in claims of two of the
10:21:14 14 patents, the '528 and the '850. The dispute comes down to
10:21:19 15 whether the Court should adopt plaintiff's construction
10:21:21 16 which we propose a construction of a physical structure that
10:21:24 17 contains fluids and receives a pressure pulse.

10:21:27 18 On the other side, we have defendant's proposal
10:21:30 19 which initially was that the term buffer was indefinite, or
10:21:34 20 in the alternative, it should be treated under 112,
10:21:38 21 Paragraph 6 as a means-plus-function term.

10:21:42 22 Now, Your Honor, I say initially because, at
10:21:44 23 least based on the slides that -- we did receive a copy of
10:21:48 24 defendant's slides yesterday, and they don't appear to be
10:21:51 25 addressing indefiniteness. So we're not entirely sure if

10:21:54 1 they're still pursuing that. Nonetheless, we've prepared as
10:21:58 2 if they are as that was one of their first positions.

10:22:02 3 THE COURT: Well, so why don't you right now,
10:22:05 4 Mr. Moffett, just make the positive case for your proposed
10:22:08 5 construction which, you know, my initial take on it is
10:22:15 6 saying it's a physical structure, that is actually a
10:22:18 7 non-description. That it contains fluid, I thought that
10:22:27 8 there was something I saw where some of the reservoirs or
10:22:33 9 some of the buffers could contain a gas, but maybe I'm wrong
10:22:38 10 about that.

10:22:38 11 And it receives a pressure pulse. And as far as
10:22:42 12 I can tell, at least the three asserted claims, receives a
10:22:47 13 pressure pulse, that seems to be a different element of the
10:22:51 14 claim. So I'm kind of wondering of saying it receives a
10:22:57 15 pressure pulse, isn't that a bit redundant?

10:23:01 16 MR. MOFFETT: Sure, Your Honor. First of all,
10:23:03 17 with respect to your first question regarding whether it
10:23:07 18 contains a fluid, to clarify, and the parties agree on this
10:23:11 19 and their experts do as well, a fluid refers both to gas and
10:23:16 20 liquid.

10:23:17 21 THE COURT: Yes.

10:23:18 22 MR. MOFFETT: So yes, there are -- it could be
10:23:21 23 gas fluid or it could be a liquid fluid. What it wouldn't
10:23:27 24 be, for example, is a vacuum because then you couldn't have
10:23:29 25 this buffering effect. You conceive a pressure pulse, so

10:23:34 1 we're specifying it for that reason.

10:23:36 2 Mr. Landers, if we can go to slide 11 and
10:23:41 3 address our construction. So Your Honor, we felt it was
10:23:47 4 important to put forward a construction of buffer primarily
10:23:52 5 in response to defendant's initial position that the term
10:23:56 6 was wholly indefinite. You are correct that some of the
10:24:00 7 components of our construction may be considered redundant
10:24:05 8 in that our construction is entirely consistent with the
10:24:09 9 claim language which is where you really should start when
10:24:11 10 construing a term.

10:24:13 11 As I said, buffer appears in two of the -- it
10:24:17 12 appears throughout the specification in most of the
10:24:20 13 specifications, but it's in claims in the '528 and '850, and
10:24:25 14 in both instances the claims themselves support plaintiff's
10:24:30 15 construction. In the '528 patent, claim 22 claims a
10:24:35 16 microfluidic device. And as you walk through it, it's as
10:24:40 17 Mr. O'Neill described. Importantly, it conveys a stream of
10:24:43 18 particles in a carrier fluid. And the rest of the
10:24:47 19 components of the claim show us that those components are
10:24:51 20 fluidly connected until we get to the buffer which is in
10:24:55 21 communication with the second side channel for absorbing the
10:24:58 22 pressure pulse.

10:24:59 23 It's in communication. That tells us it
10:25:00 24 contains a fluid. It can't be a vacuum, for example. It's
10:25:04 25 got to have a liquid or gas. And it absorbs the pressure

10:25:09 1 pulse as we've put forward. The '850 patent, claim 1 is on
10:25:15 2 point as well and consistent with plaintiff's construction
10:25:18 3 that a buffer is configured to fluidly cooperate with the
10:25:22 4 actuator for absorbing or dampening the pressure pulse.

10:25:26 5 So some of the construction that we've put
10:25:29 6 forward, Your Honor, could be considered redundant. I would
10:25:33 7 argue that what it is is consistent with the claim language
10:25:36 8 in the specification, and particularly important to rebut
10:25:40 9 defendant's position, that initial position that buffer was
10:25:44 10 indefinite or that it's 112, paragraph 6.

10:25:49 11 If we go to slide 12, Mr. Landers, plaintiff's
10:25:55 12 construction is also consistent with the specifications.
10:26:00 13 One of the points NanoCollect makes, defendants make in
10:26:04 14 their briefing is that the term buffer is indefinite or has
10:26:08 15 no meaning, in part, because it doesn't appear in the '528
10:26:13 16 specification. This is one of the earlier specifications,
10:26:15 17 one of the earlier applications, and they make the point
10:26:21 18 buffer is not used in the specification as an initial matter
10:26:24 19 with respect to their indefiniteness argument.

10:26:28 20 That's not really the question. The question is
10:26:30 21 whether a person skilled in the art would understand the
10:26:32 22 scope of the claims, claims that use the term buffer. But
10:26:36 23 in any event, buffer does appear in the intrinsic record
10:26:41 24 pretty much, you know, dealing with their concern about
10:26:46 25 whether or not a person skilled would understand buffer

10:26:48 1 based on it not appearing in the specification.

10:26:50 2 That said, backing up, the '528 specification
10:26:56 3 describes exactly what the buffer in the claims is. An
10:27:01 4 example of it, in particular, in this excerpt we've put on
10:27:03 5 slide 12, it describes that second structure that
10:27:08 6 Mr. O'Neill pointed to as absorbing the transient pressure
10:27:11 7 variations and containing a compressible fluid.

10:27:15 8 Here, we have -- that is consistent with
10:27:19 9 plaintiff's construction. So the specification tells us
10:27:22 10 what it is, even though the term buffer is not used.

10:27:24 11 But if we go to slide 13, Mr. Landers, as I
10:27:30 12 said, it's also supported in the prosecution history in the
10:27:34 13 intrinsic record. What we have on slide 13, Your Honor, is
10:27:39 14 an excerpt from the prosecution history where the applicant
10:27:44 15 was distinguishing a prior art reference referred to as
10:27:47 16 Dunaway. And the point being made is that the Dunaway
10:27:51 17 reference lacked that second reservoir or buffer from
10:27:55 18 absorbing pressure variation.

10:27:58 19 That tells us two things, Your Honor. One, that
10:28:02 20 the term buffer was understood at the time of the invention
10:28:05 21 to refer to exactly what the plaintiff, what the patentee
10:28:09 22 was claiming. And the term buffer specifically was used.

10:28:13 23 It also tells us that the 112, paragraph 6
10:28:16 24 argument isn't supportable because buffer was known to refer
10:28:21 25 to structure, and the patentee used it in that fashion.

10:28:25 1 THE COURT: So Mr. Moffett, you know, the piece
10:28:29 2 of prosecution history you have up on the screen, isn't that
10:28:32 3 actually heading towards a much better definition of a
10:28:37 4 buffer which is, you know, it's something that contains a
10:28:42 5 fluid that, you know, allows it to absorb a pressure
10:28:49 6 variation? It's not that it receives a pressure variation,
10:28:52 7 but that it absorbs it. I mean, isn't that the essence of
10:28:55 8 what a buffer is?

10:28:56 9 MR. MOFFETT: Your Honor, I think that's
10:29:00 10 probably fair. One of the reasons we tweaked our definition
10:29:07 11 from the initial exchange of what the terms were to be
10:29:13 12 construed as, we did have absorbing as part of the
10:29:15 13 construction, but we were somewhat concerned.

10:29:17 14 Two things. One is that NanoCollect was
10:29:19 15 disputing the construction of the absorbing, and we didn't
10:29:23 16 really want to put in a claim construction dispute within a
10:29:28 17 claim construction.

10:29:29 18 And two, that the absorbing language is in the
10:29:33 19 claim language itself.

10:29:36 20 THE COURT: Well, and that may be, but the thing
10:29:38 21 that concerns me about your proposal is it doesn't really
10:29:43 22 seem to go to the essence of what a buffer is.

10:29:47 23 MR. MOFFETT: Your Honor, the claim language
10:29:50 24 itself, the buffer would receive the pulse, but the --
10:29:56 25 consistently throughout the claims, that's got to receive

10:29:59 1 the pulse, and it's got to absorb or dampen, depending on
10:30:03 2 how the claim is written. So we think that is addressed in
10:30:05 3 the claim language.

10:30:06 4 We were merely trying to construe the term
10:30:09 5 buffer, not the entire claim element. We believe the claim
10:30:12 6 element read as a whole in light with our construction gets
10:30:16 7 to where you're at, Your Honor. I'll say we're probably not
10:30:21 8 opposed to working absorbing into the construction instead
10:30:25 9 of receiving. Really the main concern we have is the
10:30:30 10 indefiniteness angle and then their effort to angle the
10:30:35 11 meaning of buffer to just the specific embodiments disclosed
10:30:38 12 under 112, paragraph 6.

10:30:40 13 THE COURT: All right. So Mr. Moffett, why
10:30:43 14 don't I hear from the defendant here.

10:30:49 15 MR. CARSTEN: Thank you, Your Honor. Good
10:30:52 16 morning. My name is Doug Carsten. I have not had the
10:30:55 17 pleasure of appearing before you before, and it's an odd way
10:30:57 18 to have my maiden voyage in front of you, Your Honor.

10:31:01 19 I'll be presenting on four of the terms. My
10:31:03 20 colleague, Mr. Burrowbridge, will be presenting on six
10:31:08 21 others. I would like, just for a moment, if we could
10:31:12 22 actually share the screen, so that way Mr. Burrowbridge
10:31:16 23 could pull up our slide deck.

10:31:17 24 I understand that your staff, Your Honor, is
10:31:20 25 going to be providing you with a copy of our slides as well.

10:31:25 1 The presentation is sort of slide driven, but quite frankly,
10:31:29 2 I think we can dispatch of that. I will refer to slides so
10:31:33 3 that way on the transcript, Your Honor, you'll be able to go
10:31:36 4 back and see what we've got.

10:31:38 5 THE COURT: Well, so Mr. Carsten, as much as
10:31:41 6 possible, I intend to be ruling on these things as we go
10:31:44 7 along. So you can, you know, make a record if you like, but
10:31:49 8 in terms of trying to persuade me, don't count on me going
10:31:53 9 back later on to track this stuff down.

10:31:57 10 MR. CARSTEN: Understood. So just some initial
10:32:00 11 opening comments to address the opening five or eight-minute
10:32:05 12 presentation from my counterpart.

10:32:07 13 Cytonome has this GigoSort device. It has not
10:32:14 14 been successful, and so unable to sort of compete in the
10:32:17 15 market against us, they're resorting to asserting their
10:32:21 16 patents. The problem is that their invention is not what we
10:32:25 17 do. It is -- we take a dramatically different approach to
10:32:30 18 solving a problem. And there are some consequences of this
10:32:34 19 which apply directly to the claim constructions that we're
10:32:37 20 going to be handling today.

10:32:39 21 One, there's an attempt by Cytonome to take
10:32:43 22 narrow disclosures, and I'll get to some of the disclosures,
10:32:46 23 and try to read them much more broadly to sweep in things
10:32:50 24 that they never contemplated or invented.

10:32:53 25 Two, there's an attempt to undo strategic

10:32:57 1 elections that were made during the file histories and
10:33:00 2 during the prosecution of the patents which we'll get to as
10:33:03 3 well.

10:33:03 4 And then, finally, there's an attempt to sort of
10:33:07 5 read words of limitations out of claims to broaden them
10:33:11 6 beyond what they perceive to be their invention at the time.

10:33:14 7 Now, if you go back to slide 2 which was of
10:33:21 8 Cytonome's proposal, that was the patent family history that
10:33:23 9 we saw. There is --

10:33:25 10 THE COURT: Yes.

10:33:26 11 MR. CARSTEN: -- a common ancestor. That common
10:33:28 12 ancestor is a priority application. That's a provisional
10:33:33 13 application. There are two families that happen under that.

10:33:39 14 Certainly, some of that disclosure is carried
10:33:42 15 forward into each of those sides of the house, if you'll
10:33:44 16 have it. Those are two utility applications that were filed
10:33:49 17 on the very same day.

10:33:51 18 The inventors, the named inventors at the time
10:33:55 19 made a strategic choice to include, or exclude, or add to in
10:34:01 20 one side of the house different material from the other side
10:34:05 21 of the house. So right there you have three different
10:34:10 22 disclosures, the priority document, that provisional. You
10:34:13 23 have the left-hand side of the house which gives rise to
10:34:16 24 three of the asserted patents at suit, and a third
10:34:20 25 disclosure which gives rise to some of the patents on the

10:34:23 1 right-hand side.

10:34:26 2 In addition to that -- so this is -- we have the
10:34:28 3 provisional filed in April. June 24th, the same day, two
10:34:33 4 separate utility applications filed, each with different
10:34:36 5 disclosures. Strategically determined to be different,
10:34:41 6 elected to have different disclosures. In December of that
10:34:45 7 same year, 2002, you have a continuation-in-part application
10:34:48 8 that's filed, and that gives rise to two other patents that
10:34:52 9 are being asserted here.

10:34:53 10 So this is not a situation where you've got a
10:34:57 11 unified stream where there's commonality among all of these
10:35:02 12 patent applications such that disclosures made in one
10:35:06 13 application are fair game for others. There's never been a
10:35:10 14 case cited of that by the other side, here by Cytonome, that
10:35:14 15 suggests that a disclosure that's downstream can sort of
10:35:20 16 like a salmon swim upstream and then propagate downstream
10:35:24 17 into the other side of the house.

10:35:26 18 That's not been the law. They've not cited a
10:35:29 19 case for that proposition. And it's going to be important
10:35:31 20 when Mr. Burrowbridge, my colleague, addresses certain of
10:35:34 21 the claim terms because you'll see that they try to go from
10:35:39 22 the right side of the house or a CIP of the right side of
10:35:42 23 the house all the way over through this intervening
10:35:47 24 provisional application into the other side.

10:35:50 25 So with respect to my presentation, Your Honor,

10:35:56 1 I don't have a big problem with the way in which the
10:36:02 2 technology was presented. I think in large swaths, it's
10:36:07 3 generally accurate to say that, you know, there is a stream
10:36:10 4 of particles, and those stream of particles typically are in
10:36:16 5 practice cells.

10:36:17 6 And so if I think of it as sort of socially
10:36:22 7 distancing these cells, right, so you take these cells, you
10:36:26 8 use -- you put them through a stream into a narrow chamber
10:36:29 9 with a carrier fluid around it, and that carrier fluid
10:36:32 10 carries these cells one at a time through the device.

10:36:36 11 So here's the seven asserted patents, and again,
10:36:40 12 there are multiple disclosures here. This is my slide 2.
10:36:44 13 There remain 42 asserted claims with 25 disputed claim terms
10:36:48 14 for Your Honor to grapple with, unfortunately. Thirteen
10:36:51 15 provided by us. Twelve provided by Cytonome.

10:36:58 16 I mean, the case remains, notwithstanding the
10:37:00 17 attempts of the parties and the attempts of NanoCollect, to
10:37:04 18 reduce the scope. We may be back before you at some point,
10:37:08 19 Your Honor, to try to reduce it further.

10:37:09 20 If we could go to slide 3, please. So again,
10:37:17 21 these are two images. One is Figure 16 from the '528
10:37:22 22 patent. Figure 5A is from the '188 patent. That's what I
10:37:25 23 think my colleague called the odd ball patent or the patent
10:37:30 24 that's sort of the separate -- altogether separate type of
10:37:35 25 chain of application.

10:37:36 1 Again, you've got the stream of particles
10:37:37 2 running across from left to right, and then you've got the
10:37:40 3 two bubble valves, one of which is attached to an actuator.
10:37:45 4 That's Item 176 in Figure 16. That actuator provides a
10:37:49 5 pressure pulse.

10:37:50 6 The pressure pulse pushes or pushes up, in this
10:37:53 7 instance, onto that stream of particles. And it's supposed
10:37:58 8 to deflect a particle from that stream of particles. The
10:38:02 9 bubble valve at the top, that in combination with the fact
10:38:09 10 that it's filled with a gas and has a meniscus that you can
10:38:14 11 see as Item 175 there through that side channel supposedly
10:38:18 12 absorbs or dampens, depending upon the claim language, that
10:38:22 13 pressure pulse. It's a fairly narrow disclosure.

10:38:26 14 So now if I might, unless Your Honor has any
10:38:27 15 questions about the background, I'd like to talk about the
10:38:30 16 buffer, the limitation.

10:38:31 17 THE COURT: Go ahead.

10:38:32 18 MR. CARSTEN: Thank you, Your Honor. And so if
10:38:34 19 we could go to slide 8. We do believe that this claim is
10:38:41 20 indefinite. Buffer connotes absolutely no structure
10:38:46 21 whatsoever. And so the only way to try to save the patent
10:38:51 22 from indefiniteness is by virtue of trying to construe it.
10:38:57 23 And to construe it, and I think Your Honor mentioned a
10:39:01 24 proposal for a possible construction, and I think you said
10:39:04 25 something along the lines of, you know, the problem is that

10:39:07 1 the construction you have, Cytonome, doesn't really get to
10:39:12 2 the essence of what a buffer is.

10:39:14 3 And I agree with you, Your Honor, but the
10:39:16 4 problem is that the essence of what a buffer is is its
10:39:21 5 function. And the claim term here, buffer for absorbing the
10:39:25 6 pressure pulse, is a nonce word that's coupled to a
10:39:32 7 function. And so the buffer for absorbing the pressure
10:39:35 8 pulse, buffer configured for absorbing or dampening the
10:39:38 9 pressure pulse, a reservoir -- we'll get to that term in a
10:39:40 10 bit -- adapted for dampening or absorbing the pressure
10:39:44 11 pulse, all of these get to that fundamental function.

10:39:47 12 And so, you know, we've got some case law here.
10:39:50 13 Williamson a few years back did change the law a bit in
10:39:52 14 terms of not having a strict or strong presumption when it
10:39:57 15 comes to not using the word means. If you use a word that
10:40:01 16 doesn't convey sufficient structure to a person of skill in
10:40:05 17 the art, then you still are within means-plus-function claim
10:40:09 18 language.

10:40:10 19 Can we go to slide 1, please?

10:40:12 20 The output of Williamson and the import of
10:40:16 21 Williamson is one test for the application or applicability
10:40:19 22 of means plus function is that does it set forth the same
10:40:22 23 black box recitation of structure for providing the same
10:40:26 24 specified function as if the term means had been used.

10:40:28 25 Well, let's see. If we go to slide 14, a buffer

10:40:33 1 for absorbing the pressure pulse versus a means for
10:40:37 2 absorbing the pressure pulse. There's no difference between
10:40:40 3 the two. This is exactly the situation contemplated by
10:40:45 4 Williamson and its progeny.

10:40:47 5 And even if we take the only piece, Cytonome's
10:40:52 6 proposed definition that has anything to do with structure
10:40:55 7 and plug it in there, a physical structure for absorbing the
10:40:58 8 pressure pulse, that, too, is a nonce word. You could
10:41:02 9 replace a with any, and you'd still have the same situation.
10:41:07 10 So we've got nonce words, the word for, and the function.
10:41:12 11 This is a 112, 6 claim. This is means plus function.

10:41:18 12 And we've got some expert testimony from
10:41:22 13 Dr. Di Carlo in our papers about buffer not conveying or
10:41:27 14 connoting any particular --

10:41:29 15 THE COURT: Mr. Carsten.

10:41:30 16 MR. CARSTEN: Yes.

10:41:31 17 THE COURT: In terms of Dr. Di Carlo, did you
10:41:34 18 submit that with the sur-reply?

10:41:37 19 MR. CARSTEN: I'll take a look at the dates,
10:41:41 20 Your Honor. It may well be.

10:41:43 21 THE COURT: Well, it's only mentioned, as far as
10:41:45 22 I can tell, in your sur-reply briefing. So I didn't go to
10:41:50 23 try to figure out independently when it was dated, but it
10:41:54 24 certainly seemed to me that it was not something that you
10:41:59 25 submitted in connection with your opening brief.

10:42:02 1 MR. CARSTEN: It was submitted on the 14th of
10:42:07 2 February. I would need to go back and determine exactly
10:42:10 3 what the date is for that, Your Honor, and where it fits in
10:42:15 4 with the briefing to see if that was submitted at the early
10:42:19 5 stage or after, on the first round or after.

10:42:23 6 THE COURT: Well, so maybe somebody else on your
10:42:24 7 team knows the answer.

10:42:30 8 MR. CARSTEN: I would hope so.
10:42:35 9 Mr. Burrowbridge? Mr. Liston?

10:42:37 10 THE COURT: Anybody?

10:42:47 11 MR. LISTON: Checking, Your Honor.

10:43:05 12 MR. BURROWBRIDGE: This is Adam Burrowbridge.
10:43:07 13 It was submitted with the sur-reply.

10:43:09 14 THE COURT: Okay. Well, that's kind of what I
10:43:11 15 took from the way it appeared. So to some extent, I'm
10:43:14 16 surprised plaintiff isn't objecting because it seems to me
10:43:22 17 when you have the burden of proof by clear and convincing
10:43:25 18 evidence, and you want to submit an affidavit in support of
10:43:29 19 that, you ought to do it with your opening brief, not with
10:43:32 20 your reply brief.

10:43:35 21 To the extent that plaintiff's expert would want
10:43:37 22 to respond, you know, then I'd be having a sur sur-reply
10:43:42 23 brief. So don't do that again.

10:43:46 24 All right. Let's move on.

10:43:48 25 MR. CARSTEN: Understood, Your Honor.

10:43:52 1 THE COURT: Is there anything more, Mr. Carsten?

10:43:56 2 MR. CARSTEN: So can I just check my notes
10:43:59 3 briefly, Your Honor? We do have corresponding structure
10:44:02 4 that we've identified per the claim requirements in
10:44:07 5 Williamson that we've identified. And you know, there's --
10:44:10 6 so if we could go to slide 18. So there's not one thing
10:44:17 7 that's disclosed that you can say is the buffer. It is a
10:44:23 8 series of items compounded together that conceivably -- that
10:44:28 9 we can see here that conceivably does this absorbing or
10:44:31 10 dampening, and we'll get to that term in a moment.

10:44:34 11 But the bubble valve, the reservoir, the side
10:44:38 12 channel, and the meniscus all work together in order -- as
10:44:43 13 far as we can tell from the disclosure, in order to absorb
10:44:45 14 that pressure pulse. It's not simply one bit of structure.

10:44:50 15 THE COURT: Mr. Carsten --

10:44:51 16 MR. CARSTEN: You asked earlier about the term
10:44:53 17 fluid --

10:44:53 18 THE COURT: Oh, yeah.

10:44:53 19 MR. CARSTEN: -- and I think there was a
10:44:56 20 representation made that fluid is both a gas and a liquid,
10:44:59 21 and there's no dispute about that. In general, I agree with
10:45:01 22 that. If you asked a scientist, for example, is a gas a
10:45:05 23 fluid, they would say, yes. Is a liquid a fluid, they would
10:45:09 24 say yes. But the way that this claim is written and the way
10:45:13 25 that these inventors describe their invention, you're

10:45:18 1 absolutely right, that in order for this to operate, you
10:45:22 2 need to have a compressible fluid which is a gas sitting in
10:45:28 3 that bubble valve. That's the way in which the pressure
10:45:31 4 pulse, according to function of buffer, is actually
10:45:35 5 performed in the way that their invention is described in
10:45:39 6 the patents.

10:45:40 7 And so in theory, yes, I agree there's no
10:45:44 8 dispute that a fluid can be both. But when you're talking
10:45:47 9 about a fluid in a particular spot that's functioning in a
10:45:52 10 certain way, it's exactly what we have here. That's where
10:45:56 11 we've got an issue about whether it can be a liquid or not.

10:45:59 12 I think in this instance, it has to be a gas.
10:46:01 13 It has to be. It's a gas that's compressible in order to
10:46:05 14 absorb or dampen that.

10:46:07 15 I do have some responses to some slides that
10:46:10 16 Cytonome didn't get to, but unless Your Honor has questions
10:46:12 17 for me.

10:46:13 18 THE COURT: Well, I do have a question which is:
10:46:18 19 So presumably the time frame from which we're viewing the
10:46:25 20 disclosure in these patents is 2002?

10:46:30 21 MR. CARSTEN: I believe that's correct, Your
10:46:32 22 Honor. It's as of the time -- so -- and all of the priority
10:46:35 23 documents, both the provisional, the two utilities, and the
10:46:38 24 CIP were all in 2002, between April and December of that
10:46:42 25 year.

10:46:44 1 THE COURT: And isn't it the case that you could
10:46:48 2 probably look up the term buffer in a lot of different
10:46:51 3 scientific reference works at the time and you'll find some
10:46:57 4 definition of what a buffer is; right?

10:46:59 5 MR. CARSTEN: Well, it's interesting, Your
10:47:01 6 Honor, because if you actually have Cytonome's slide deck,
10:47:07 7 at slide 19 they actually do have a definition from a
10:47:12 8 dictionary. It just happens to be the Merriam-Webster
10:47:16 9 Dictionary. I'm not entirely sure what year it is, but the
10:47:19 10 word buffer, of course, appears there. And they have
10:47:21 11 definition one here, and the definition says, Any of various
10:47:26 12 devices or pieces of material for reducing shock or damage
10:47:32 13 due to contact.

10:47:34 14 That definition itself is means plus function.
10:47:37 15 The structure is any of various devices or pieces of
10:47:41 16 material, and that uses the word for, and then it has the
10:47:44 17 function. So even the definitions that we have of record
10:47:47 18 here are functional in nature.

10:47:51 19 THE COURT: But it's not the indication that any
10:47:52 20 time there's a functional definition, that makes this thing
10:47:56 21 indefinite or means plus function. There are plenty of
10:48:00 22 things that are understood structures which are essentially
10:48:07 23 understood in relation to what the function is that they
10:48:10 24 perform. And I seem to recall, though I can't cite you the
10:48:17 25 case names right now, Federal Circuit discussion of this.

10:48:25 1 So I don't -- so basically, I don't think the use of the
10:48:34 2 word buffer and what you've presented come close to
10:48:38 3 overcoming the presumption that it's not means plus
10:48:43 4 function. I don't think it's indefinite. It may be a broad
10:48:47 5 term, but there is a Federal Circuit case that I just
10:48:54 6 remember as BASF from maybe about two or three years ago
10:48:58 7 that said -- this is almost a direct quote, being broad does
10:49:04 8 not mean that it's indefinite.

10:49:07 9 And so I'm going to reject your proposals for
10:49:15 10 the buffer terms, but I don't like plaintiff's proposed
10:49:21 11 construction, and so I'm not going to adopt it. I would
10:49:27 12 like the plaintiff to think about what it wants to do and,
10:49:36 13 you know, some time, let's say, two weeks from now, after
10:49:40 14 some amount of meeting and conferring with the defense to
10:49:46 15 make some other proposal, because I do think the proposal
10:49:50 16 that plaintiff has made, you know, doesn't do much to
10:49:56 17 explain what a buffer is, either generally or in the context
10:50:00 18 of the patent, or as understood by a person of ordinary
10:50:04 19 skill in the art.

10:50:05 20 So let's move on to the next term.

10:50:08 21 MR. CARSTEN: Your Honor, if I may, the next
10:50:10 22 term is reservoir, and to my mind reservoir goes essentially
10:50:14 23 hand in hand with buffer. The same arguments that we made
10:50:17 24 for buffer in terms of its application under 112, 6 are the
10:50:20 25 same arguments that we made for reservoir and for buffer.

10:50:25 1 THE COURT: Well, so hold on. Hold on just one
10:50:27 2 second.

10:50:28 3 MR. CARSTEN: Sure.

10:50:29 4 THE COURT: Oh, yes. Okay. Wait. Let me
10:50:34 5 just -- all right. So if I understand what you're saying is
10:51:01 6 we don't really need to address reservoir because I would
10:51:04 7 make the same ruling in connection with that that I just
10:51:07 8 made with buffer. I would say that's correct.

10:51:14 9 One difference is that I think reservoir is --
10:51:21 10 you know, that's a structure that even a lay person will
10:51:24 11 understand as it is. So I don't think there needs to be
10:51:29 12 something other than the plain and ordinary meaning of a
10:51:37 13 reservoir.

10:51:37 14 You know, I guess as contemplated in the
10:51:40 15 microfluidics sort of context and not in the Williamson
10:51:47 16 reservoir context, but so I reject defendant's proposal for
10:51:55 17 reservoir, and I'm not going to give it plaintiff's
10:52:01 18 construction, but I don't think they need to come up with an
10:52:05 19 alternative construction for reservoir.

10:52:07 20 What's next?

10:52:08 21 MR. CARSTEN: Next would be absorbing, and we're
10:52:10 22 happy to have plaintiff go first or we can go first
10:52:13 23 regardless.

10:52:13 24 THE COURT: Okay. Hold on just a second. So
10:52:15 25 that's page 8. Let me just check for a second here.

10:52:26 1 Well, Mr. Carsten, why don't you go first since
10:52:33 2 there's very little proposal from the plaintiff. You can
10:52:37 3 tell me why you think I ought to construe it as the fourth
10:52:43 4 Merriam-Webster's Dictionary.

10:52:43 5 MR. CARSTEN: Thank you, Your Honor. So the
10:52:46 6 claims -- some claims say absorbing, some claims say
10:52:51 7 absorbing or dampening, or dampening, or absorbing. This is
10:52:56 8 our attempt to give the word absorbing some meaning that
10:53:00 9 differs from dampening.

10:53:02 10 We have two claims that the patentee here -- two
10:53:05 11 words that the patentee here has put together in a claim
10:53:10 12 through using the connector word. They must mean something
10:53:13 13 different. And so the parties have agreed that the term
10:53:18 14 dampening means to meaningfully dissipate or to dissipate
10:53:23 15 meaningfully if you're not in Star Trek land.

10:53:25 16 But where -- so the question then is: What does
10:53:30 17 absorbed mean if meaningfully dissipate is dampen? We
10:53:34 18 submit that it must refer to a difference in degree in the
10:53:38 19 amount of the pressure pulse that is being dissipated. And
10:53:44 20 we would submit that because you've got a floor on dampen as
10:53:50 21 being dissipation which is meaningful, that it has to be a
10:53:54 22 larger amount.

10:53:56 23 And when you look and see what the dictionary
10:54:00 24 says, obviously, there are entries above the fourth item, or
10:54:05 25 the 2c, or whatever it might be that was there, but those

10:54:11 1 entries beforehand don't necessarily -- aren't in the same
10:54:18 2 line of dissipation as when you're talking about -- or
10:54:23 3 absorption as when you're talking about energy.

10:54:24 4 So for example, one of the definitions had to do
10:54:28 5 with taking up in a gradual manner as. So if you took a
10:54:32 6 sponge and put it on a puddle of water that it would suck up
10:54:36 7 the water in a gradual manner. I mean, that's a different
10:54:39 8 sort of absorption, I suspect, and I think based upon our
10:54:42 9 expert's disclosure than what we're talking about here.

10:54:45 10 And so while it is the fourth stated definition,
10:54:49 11 it is the one that most directly applies to a situation
10:54:54 12 where you're talking about dissipation of an energy and
10:54:58 13 that's to receive without recoil or echo.

10:55:02 14 Now, I'm on slide 38 of our presentation.

10:55:05 15 THE COURT: So Mr. Carsten, you know, what you
10:55:06 16 just said a minute ago, it made me think that, you know, you
10:55:11 17 have in your car airbags that, you know, if you have an
10:55:18 18 impact, they will open up, and that's to absorb the person
10:55:23 19 who's sitting behind the driver's wheel, the impact of them
10:55:28 20 hitting the wheel. And isn't that a lot more like what
10:55:33 21 we're talking about here or isn't that analogous to what
10:55:37 22 we're talking about here?

10:55:39 23 MR. CARSTEN: Well, certainly I think the airbag
10:55:41 24 would dampen the pressure of the person or the force of the
10:55:44 25 person going forward, absolutely. So it would soften the

10:55:47 1 impact. It would meaningfully dissipate that force going
10:55:52 2 forward. Absolutely.

10:55:53 3 But would it absorb that force? It certainly
10:55:57 4 would dampen it. And this is a problem of plaintiff's own
10:56:01 5 making, Your Honor. They put the word dampen which they
10:56:04 6 agree means meaningfully dissipate right next to the word
10:56:08 7 absorb. And those two words have to mean something, and
10:56:11 8 they ought to mean something different. And to my mind,
10:56:16 9 this has been a very unsatisfying exercise because I really
10:56:19 10 can't tell where dampening ends and absorption begins.

10:56:25 11 THE COURT: Well, in my mind, you have two words
10:56:29 12 that are similar, and there's not a bright-line divider
10:56:32 13 between them. They overlap. Right?

10:56:36 14 MR. CARSTEN: They could well overlap, yes, Your
10:56:38 15 Honor.

10:56:38 16 THE COURT: And so, but it sounds like what
10:56:40 17 you're trying to do is to say, no, because they said absorb
10:56:44 18 or dampen, you have to be able to decide which side of a
10:56:48 19 line you're on to be dampened or to be absorbed. And that's
10:56:52 20 just not the way people speak or write, is it?

10:56:55 21 MR. CARSTEN: Well, Your Honor, they have
10:56:57 22 claims. So Cytonome has made a strategic choice. They
10:57:02 23 tendered claims which say absorb or dampen, and they have
10:57:05 24 other claims which just said just absorb. So there's got to
10:57:11 25 be a difference there, and the public needs to understand

10:57:13 1 where that difference is. So it may not be colloquially
10:57:18 2 where you or I would write. Maybe we'd think we're just
10:57:22 3 being more descriptive.

10:57:26 4 But here we're talking about legal documents
10:57:27 5 that have a defined and real consequence such that they're
10:57:32 6 saying, This is my stake of land, and you shall not trespass
10:57:37 7 on it. And they're asserting those patents here against us,
10:57:41 8 against my client, NanoCollect. So those claim terms have
10:57:44 9 to mean something, and we ought to be able to determine,
10:57:47 10 based upon the words that they've chosen and proffered to
10:57:51 11 the Patent Office, saying this describes exactly what my
10:57:53 12 invention is and where people can't trespass.

10:57:57 13 Then those have to have consequences and have to
10:58:00 14 have meanings. And I can't, for the life of me, say that
10:58:04 15 while there may be some overlap, when I've started to absorb
10:58:07 16 and when I've started to dampen, or when I've dampened or
10:58:11 17 when I've finished dampening, and that's really the heart of
10:58:14 18 this issue. It is a hard sort of indefiniteness position
10:58:19 19 here.

10:58:19 20 We don't know exactly where things are, and
10:58:22 21 we're doing our level best to try to come up with a meaning
10:58:26 22 for the term absorb based upon Cytonome's prosecution
10:58:32 23 strategy here that makes sense, that makes sense for a
10:58:35 24 person of skill in the art.

10:58:38 25 Now, Cytonome has said, well, that can't be

10:58:40 1 right because, you know, you're requiring perfection.
10:58:44 2 Nobody is requiring perfection. That's a red herring straw
10:58:48 3 man.

10:58:49 4 What we're saying is that we know that dampen
10:58:54 5 means to meaningfully dissipate. We've agreed on that.
10:58:57 6 Absorb has to be something more than that. And it has to be
10:59:01 7 something that we can put our arms around and come up with a
10:59:05 8 definition to. Otherwise, the claim is indefinite. And
10:59:08 9 this is our attempt at doing exactly that, Your Honor.

10:59:10 10 So we would respectfully request that the Court
10:59:12 11 adopt our claim construction on the term absorb.

10:59:15 12 THE COURT: I take it, Mr. Carsten, you agree
10:59:18 13 that the words recoil and echo don't appear anywhere in the
10:59:24 14 thousands of pages of patent specification and prosecution
10:59:32 15 history, et cetera; right?

10:59:34 16 MR. CARSTEN: I don't believe that they do
10:59:35 17 appear in the specifications for sure. My sense is that
10:59:39 18 they likely don't appear in the file history, either.

10:59:43 19 THE COURT: All right. So why don't I switch
10:59:53 20 over to the other side for a minute. Is that you,
10:59:56 21 Mr. Landers?

10:59:58 22 MR. LANDERS: Yes, Your Honor. If I could get
11:00:02 23 presenting capabilities, I can put up my slide here.

11:00:29 24 THE COURT: All right. I think you have it,
11:00:31 25 Mr. Landers.

11:00:32 1 MR. LANDERS: Okay. Thank you. I'll start with
11:00:34 2 slide 26 here, and really the issue is something Mr. Carsten
11:00:38 3 actually brought up, and that is that NanoCollect admits
11:00:41 4 that perfect absorption is not necessary. It's not
11:00:44 5 achievable. It's not required.

11:00:46 6 So the upshot of that is that if their
11:00:49 7 construction is adopted, NanoCollect's construction would
11:00:52 8 actually defeat the purpose of claim construction because
11:00:56 9 their expert would need to get on the stand and explain that
11:00:59 10 although it says without recoil or echo, people of skill are
11:01:03 11 actually going to understand that some recoil or echo is
11:01:06 12 permitted. Well, that's going to be confusing to the jury
11:01:08 13 because it means that NanoCollect's construction doesn't
11:01:11 14 actually mean what it says.

11:01:12 15 So if it's adopted, it's going to end up just
11:01:15 16 inviting a battle of the experts in front of the jury over
11:01:18 17 what exactly it means, and we think the term absorbing
11:01:21 18 means -- has a plain and ordinary meaning that would be
11:01:23 19 readily understood.

11:01:24 20 THE COURT: What is that plain and ordinary
11:01:26 21 meaning?

11:01:28 22 MR. LANDERS: We think actually the first part
11:01:29 23 of their construction is close. It says simply to receive.
11:01:33 24 Kind of like the sponge example, it simply takes up or takes
11:01:36 25 in. And the screen I'm sharing here, that's what the patent

11:01:40 1 is getting at when it's describing the absorption process.

11:01:46 2 THE COURT: So when the FedEx gentleman
11:01:49 3 delivered a package to my house this morning, did I absorb
11:01:52 4 it?

11:01:55 5 MR. LANDERS: In a sense you've absorbed it
11:01:56 6 into your house. You received it.

11:01:59 7 THE COURT: Okay. That's --

11:02:02 8 MR. LANDERS: It's not exact, but this is the
11:02:03 9 construction they offered, Your Honor. And what the issue
11:02:06 10 is with the second part of their construction, I can see the
11:02:09 11 word receive in light of the specification being something
11:02:12 12 that the jury could understand. For example, here in the
11:02:17 13 specification, it says that the side passage and bubble
11:02:20 14 valve, which is really describing the buffer, it absorbs the
11:02:24 15 transient pressure variations by allowing the flow of liquid
11:02:26 16 from the main duct into the side passage. So what it's
11:02:29 17 describing is that liquid. And the resulting pressure pulse
11:02:32 18 actually gets taken in which is another word for receive.

11:02:38 19 And so we actually had our expert, Dr. Vacca,
11:02:43 20 weigh in on it. He said something similar. He said he
11:02:46 21 could agree with the first part of NanoCollect's
11:02:49 22 construction because that's just another way of expressing
11:02:51 23 the well described meaning which is to take up or take in.
11:02:54 24 He just can't agree with that second part about recoil and
11:02:57 25 echo because it causes problems.

11:03:00 1 So here on slide 28 is another excerpt. This is
11:03:04 2 from the '850 patent, and here the patent is talking about
11:03:07 3 absorbing with respect to the spring constant. And in there
11:03:11 4 the patent is saying that the buffer's positioned to absorb
11:03:14 5 the pressure pulse, and that the spring constant of the
11:03:16 6 buffer may be varied according to the particular
11:03:19 7 requirements. And it gives some examples of how this could
11:03:21 8 be done such as by varying the volume or the buffer, and
11:03:25 9 that could be another example of how it allows the buffer to
11:03:28 10 take in this pressure pulse.

11:03:32 11 And Dr. Vacca here on slide 29 explicitly
11:03:35 12 explains that passage. He's saying that when you're talking
11:03:38 13 about the spring constant, you're actually talking about
11:03:42 14 adjusting the amount of absorption that the device is
11:03:45 15 capable of doing. And he says a person of skill would
11:03:48 16 understand that the characteristics for varying the spring
11:03:51 17 constant are to be selected by the designer who will be
11:03:53 18 familiar with the tolerable amount of echo.

11:03:56 19 So that goes to that second part of their
11:03:58 20 construction and why we think it's problematic because in
11:04:01 21 the real world, it's understood that absorption, it's never
11:04:04 22 going to be perfect. So different applications require
11:04:07 23 different levels of absorption.

11:04:09 24 On slide 30, this is really to highlight the
11:04:12 25 problem with the construction they've offered. This is from

11:04:15 1 their own expert, and here Dr. Di Carlo explains a POSA
11:04:20 2 would not have understood NanoCollect's own definition to
11:04:24 3 actually mean what it says. He says a POSA would have
11:04:26 4 understood that some degree of recoil or echo is
11:04:31 5 unavoidable, so he's agreeing with Dr. Vacca.

11:04:33 6 But the problem with that is if NanoCollect's
11:04:35 7 construction is adopted, it's going to require Dr. Di Carlo
11:04:39 8 to get up on the stand and explain to the jury that this
11:04:41 9 without recoil or echo language does actually allow for some
11:04:44 10 recoil or echo, and that's just confusing. It defeats the
11:04:48 11 whole purpose of claim construction and it should not --

11:04:51 12 THE COURT: So Mr. Landers, are you saying that
11:04:53 13 if they had proposed to receive with lessened recoil or
11:04:58 14 echo, you'd be saying, yeah, that's fine?

11:05:01 15 MR. LANDERS: We might not say, yeah, that's
11:05:02 16 fine, but we definitely would have considered that. But
11:05:05 17 that sounds more reasonable than putting language in that's
11:05:08 18 going to cause another claim language dispute within the
11:05:11 19 claim construction because that would --

11:05:13 20 THE COURT: Okay, Mr. Landers --

11:05:14 21 MR. LANDERS: Because as it sounds -- it's
11:05:16 22 confusing because it doesn't mean what it sounds like it
11:05:18 23 means.

11:05:19 24 THE COURT: All right. Anything further from
11:05:26 25 you, Mr. Carsten?

11:05:29 1 MR. CARSTEN: No, Your Honor. I think it is
11:05:30 2 just instructive that when pressed, Cytonome itself can't
11:05:35 3 even tell you what the word absorb means, that they don't
11:05:37 4 even really know. So it's a problem of their making. It's
11:05:40 5 their patent that they're asserting against NanoCollect, and
11:05:43 6 they ought to be able to tell us what the term means. And I
11:05:46 7 think that that speaks volumes about the problem that we've
11:05:51 8 had trying to come up with a concept or language that
11:05:55 9 encapsulates what that word means in the context of these
11:05:59 10 claims.

11:06:06 11 THE COURT: All right. Anything else?

11:06:09 12 MR. LANDERS: Your Honor, just to note, we did
11:06:10 13 have our expert explain his opinion. The well understood
11:06:13 14 meaning is to take up or take in. It's not that we've left
11:06:16 15 that as a confusing term. It's well understood. That's
11:06:19 16 been our position all along.

11:06:22 17 THE COURT: All right. Well, so I'm not going
11:06:32 18 to adopt the defendant's proposed construction. You know, I
11:06:38 19 think one of the features of Phillips in the late 2000s was
11:06:43 20 to sort of discourage going to the dictionary and picking a
11:06:46 21 definition, and presumably even more so pick the fourth. So
11:06:56 22 I'm going to go with the plain and ordinary meaning right
11:06:58 23 now.

11:06:59 24 You know, and that's particularly to say that I
11:07:05 25 reject defendant's proposed construction. You know, it's

11:07:11 1 possible at some later time we might be revisiting absorb in
11:07:17 2 terms of whether the jury needs any further assistance, but
11:07:24 3 I do think, you know, absorb is actually a fairly common
11:07:32 4 noun or verb. Yeah, I guess verb really. So I'm not sure
11:07:39 5 that it needs any construction. In any event, at this time
11:07:43 6 I'm not going to give it defendant's construction.

11:07:46 7 All right. Let's go on. What's the next one?

11:07:53 8 MR. CARSTEN: The next one on my list, Your
11:07:55 9 Honor, is pressure pulse.

11:07:56 10 THE COURT: Okay. Hold on just a minute.

11:08:12 11 All right. Pressure pulse.

11:08:18 12 MR. CARSTEN: Your Honor, my colleague,
11:08:19 13 Mr. Burrowbridge, will be addressing this on behalf of
11:08:21 14 defendants. We're happy to go first, or if you prefer to
11:08:24 15 hear from plaintiff first, whatever your convenience is.

11:08:26 16 THE COURT: Well, Mr. Burrowbridge, why don't
11:08:28 17 you go ahead in favor of unidirectional flow to the
11:08:32 18 microchannel/supply duct.

11:08:38 19 MR. LISTON: Your Honor, this is Ian Liston.
11:08:40 20 Could I have control of the screen so I could put up the
11:08:45 21 slides, Your Honor?

11:09:29 22 THE COURT: All right. I think,
11:09:30 23 Mr. Burrowbridge, the slide is up, I think.

11:09:34 24 MR. BURROWBRIDGE: Great. Can you hear me, Your
11:09:35 25 Honor?

11:09:35 1 THE COURT: Yes.

11:09:36 2 MR. BURROWBRIDGE: Great. Thank you.

11:09:39 3 So as you mentioned, NanoCollect proposed a
11:09:43 4 unidirectional flow to the microchannel or the supply duct
11:09:46 5 where Cytonome's proposed construction is the plain and
11:09:55 6 ordinary meaning. The claim at issue is claim 18. It's an
11:09:58 7 actuator for selectively applying a pressure pulse to the
11:10:01 8 stream to deflect a particle in the stream of particles from
11:10:04 9 the stream of particles.

11:10:07 10 Looking at slide 42, the claim language requires
11:10:11 11 three things, the three directional steps. First, an
11:10:16 12 actuator for selectively applying a pressure pulse. So the
11:10:18 13 pressure pulse starts with the actuator.

11:10:20 14 Second, applying that pressure pulse to the
11:10:22 15 stream of particles.

11:10:24 16 And third, a buffer for absorbing the pressure
11:10:27 17 pulse.

11:10:27 18 So the pressure pulse ends with the buffer. The
11:10:30 19 claims require that these pressure pulses be absorbed or
11:10:34 20 dampened by the damper which is consistent with the single
11:10:36 21 interactive unidirectional flow.

11:10:41 22 Looking at slide 43, this understanding is
11:10:47 23 consistent with the specification. There's no dispute that
11:10:51 24 the pressure pulse starts with the actuator. The actuator
11:10:53 25 can be seen in Figure 17A as call out 176. The

11:10:58 1 specification makes clear that the pressure pulse is applied
11:11:00 2 to the screen in the main channel to reflect the selective
11:11:04 3 particle of interest. The selective particle of interest
11:11:06 4 can be seen as the black particle in the middle of the image
11:11:09 5 at call out 180B. The pressure pulse thus shifts the
11:11:14 6 selected particle perpendicular to the normal flow in the
11:11:17 7 main cross channel. Thus, the pressure pulse only moves in
11:11:21 8 one direction from the actuator to the microchip.

11:11:31 9 Look at slide 44. This reading is also
11:11:33 10 confirmed by the claims that require a buffer 100A for
11:11:37 11 absorbing the pressure pulse. All seven patents confirm
11:11:41 12 this unidirectional flow which can be seen on slide 45 and
11:11:45 13 46.

11:11:46 14 THE COURT: Mr. Burrowbridge, does
11:11:49 15 unidirectional mean the same thing as in one direction?

11:11:54 16 MR. BURROWBRIDGE: Yes, Your Honor.

11:11:55 17 THE COURT: Okay.

11:11:56 18 MR. BURROWBRIDGE: So one direction from the
11:11:59 19 actuator to the microchannel which can be seen on Figure 17A
11:12:03 20 and in the figure from the '188 patent, Figure 5B. You can
11:12:09 21 see again that it's starting in the actuated bubble valve,
11:12:13 22 and it's going in a single direction from that bubble valve
11:12:17 23 towards the main channel or towards the microchannel.

11:12:22 24 Looking at slide 46, again, this understanding
11:12:26 25 is consistent across all the patents. It moves from the

11:12:29 1 actuator to the microchannel. The specifications make clear
11:12:32 2 that the pressure pulse is a transient liquid displacement
11:12:37 3 or flow that is perpendicular to normal flow in the
11:12:40 4 microchannel. The patents don't support any other
11:12:43 5 understanding.

11:12:46 6 THE COURT: So Mr. Burrowbridge, why are we
11:12:55 7 interested in this particular construction? Does your
11:12:58 8 product send things in multiple directions or is the prior
11:13:06 9 art -- I mean, why are we doing this?

11:13:12 10 MR. BURROWBRIDGE: Well, Your Honor, initially
11:13:13 11 we were doing this because this is the literal application
11:13:16 12 of the claim language. So it's --

11:13:18 13 THE COURT: Right. What difference does it make
11:13:20 14 to anything?

11:13:21 15 MR. BURROWBRIDGE: It does make a difference
11:13:23 16 with regard to the accused device and the infringement
11:13:27 17 contentions set forth by Cytonome, Your Honor.

11:13:30 18 THE COURT: So does the accused device send
11:13:33 19 things in two directions or three directions?

11:13:37 20 MR. BURROWBRIDGE: Yes, Your Honor.

11:13:38 21 THE COURT: Oh, okay. All right. Go ahead.

11:13:46 22 MR. BURROWBRIDGE: So Cytonome's response to
11:13:48 23 this, which can be seen on slide 48, relates to a single
11:13:52 24 alternative embodiment. That alternative embodiment can be
11:13:56 25 seen in slide 48 as Figure 6. It's disclosed in the '850

11:14:01 1 patent, but this alternative embodiment, as described by the
11:14:04 2 specification, confirms the NanoCollect construction.

11:14:08 3 In Cytonome's brief, it says that the wave
11:14:11 4 generator can act upon the flowing liquid, either directly
11:14:16 5 or via deflection. However, if you look at the '850 patent,
11:14:18 6 the '850 patent gives more description than that. It makes
11:14:22 7 certain there, the wave generator provided with the plunger
11:14:24 8 can act upon the flowing liquid directly or via deflection.
11:14:29 9 A person of skill in the art would understand that the
11:14:31 10 plunger forces the flow of liquid and the pressure pulse
11:14:35 11 from the actuator seen as 260 in Figure 6 in a
11:14:39 12 unidirectional flow to the microchannel, that would end up
11:14:44 13 going to the buffer as consistent with the claim language.

11:14:49 14 THE COURT: In the drawing there, the wave
11:14:55 15 generator comes from 260?

11:15:00 16 MR. BURROWBRIDGE: Yes. Yes, Your Honor.

11:15:04 17 THE COURT: What's 19?

11:15:10 18 MR. BURROWBRIDGE: Nineteen, I believe, is a
11:15:10 19 detection component.

11:15:12 20 THE COURT: So okay.

11:15:14 21 MR. BURROWBRIDGE: That's kind of like how it
11:15:16 22 knows to cause the pressure.

11:15:19 23 THE COURT: Okay.

11:15:19 24 MR. BURROWBRIDGE: It's something that works
11:15:21 25 with the actuator. Yes, Your Honor. What's clear, if that

11:15:25 1 actuator is -- that PZT actuator is just placed in the
11:15:28 2 middle of that main channel without the plunger, what you
11:15:31 3 end up having is something that PCT looks exactly on the
11:15:35 4 image on slide 48 which I believe is confirmed by Cytonome's
11:15:38 5 slide 34 which is you would have a PCT actuator placed in a
11:15:46 6 main channel where the pressure pulses would go in every
11:15:49 7 direction.

11:15:51 8 Such an embodiment, first of all, is not
11:15:52 9 supported by the '850 patent which says it must have a
11:15:56 10 plunger. But moreover, such a description would lead to an
11:16:02 11 inoperable device as the PZT actuator, would send the
11:16:07 12 pressure pulse down both channels to the right and to the
11:16:10 13 left to the keep output and the waste output, back up the
11:16:15 14 main channel towards where the stream of particles is being
11:16:18 15 inserted into the system and towards the buffer. So such a
11:16:22 16 system would be inoperable for the claim function of sorting
11:16:26 17 cells.

11:16:31 18 Cytonome cites a single case to support its
11:16:33 19 idea. It cites Verizon in its paper. Verizon says we
11:16:36 20 normally do not interpret the claim terms in a way that
11:16:38 21 excludes disclosed examples in the specification, but it
11:16:43 22 omits the supporting citation which is MBO Labs versus
11:16:49 23 Becton Dickinson which says a claim interpretation that
11:16:51 24 excludes a preferred embodiment from the scope of the claim
11:16:52 25 is rarely, if ever, correct.

11:16:55 1 So what's the issue here is not whether or not
11:16:57 2 you can exclude an alternative embodiment. You can
11:17:01 3 certainly do that. The law permits it.

11:17:04 4 And here, that alternative embodiment is either
11:17:07 5 inoperable or, as we believe, the '850 only supports that
11:17:12 6 alternative embodiment with a plunger. And that plunger,
11:17:15 7 again, would provide a unidirectional flow.

11:17:20 8 THE COURT: Okay. Is there anything else you
11:17:23 9 want to say about pressure pulse?

11:17:27 10 MR. BURROWBRIDGE: Not at this time, no.

11:17:29 11 THE COURT: Okay. Thank you, Mr. Burrowbridge.
11:17:31 12 Let's hear from the other side.

11:17:33 13 MR. BURROWBRIDGE: Thank you.

11:17:35 14 MR. LANDERS: This is Mr. Landers speaking. If
11:17:38 15 I could have the presenter view again.

11:18:02 16 Can you see that, Your Honor?

11:18:04 17 THE COURT: Not yet. Now, yes.

11:18:07 18 MR. LANDERS: Okay. Well, before I get started,
11:18:11 19 I just want to address one what I think is a key point that
11:18:15 20 Mr. Burrowbridge stated. He stated that if the plunger
11:18:17 21 works the way that Cytonome says it does, which has been our
11:18:21 22 interpretation, that the plunger comes up from the bottom
11:18:24 23 and radiates this multi-directional pulse outwardly.

11:18:28 24 The evidence for saying that it's either
11:18:30 25 inoperable or it's either unidirectional, that comes from

11:18:32 1 Dr. Di Carlo. His declaration was not attached until the
11:18:38 2 sur-reply, so we didn't get a chance to have our expert
11:18:40 3 weigh in on whether it's inoperable.

11:18:43 4 But the way the patent describes it, it does
11:18:45 5 appear to radiate outwardly. So we disagree with that
11:18:49 6 characterization. And in fact, the '850 patent, when it's
11:18:51 7 describing that Figure 6 embodiment, it actually does
11:18:56 8 describe a way the pressure pulse can still be absorbed by
11:18:59 9 modifying that spring constant that we discussed earlier.
11:19:02 10 So we don't think that's really a valid criticism of the
11:19:07 11 alternate embodiment.

11:19:08 12 THE COURT: But --

11:19:09 13 MR. LANDERS: Yes, Your Honor.

11:19:11 14 THE COURT: So you're arguing that this plunger
11:19:16 15 and the pressure pulse that it causes goes in lots of
11:19:27 16 different directions; is that right?

11:19:30 17 MR. LANDERS: Yes, Your Honor. This goes back
11:19:32 18 to the perfect absorption that we were discussing earlier.
11:19:34 19 The fact that it radiates outwardly and not all gets sucked
11:19:37 20 into this buffer doesn't mean that it's not absorbing. So
11:19:40 21 the device would still function and the patent describes how
11:19:43 22 it would function, but the point for this particular
11:19:46 23 exercise is that it's still employing a pressure pulse.

11:19:49 24 And we're not trying to say that we're using the
11:19:51 25 alternate embodiments to override anything in the preferred

11:19:54 1 embodiment. What we're just saying is the alternate
11:19:56 2 embodiments do describe a pressure pulse, so they inform the
11:19:59 3 meaning of that term when it's used in the claims. That's
11:20:02 4 how we're using the alternate embodiments.

11:20:04 5 And in this particular example, it does radiate
11:20:06 6 outwardly. But we actually provided another example
11:20:09 7 because, as I mentioned, Dr. Di Carlo didn't provide his
11:20:14 8 criticism in the sur-reply.

11:20:16 9 So I did want to point Your Honor to one more
11:20:18 10 example from the specification, and this is Figure 5 from
11:20:25 11 the '850 patent. As you can see, this isn't going to be a
11:20:29 12 unidirectional pulse here, either. This is going to be like
11:20:32 13 a zig-zag pattern coming from that bottom circle. That's
11:20:35 14 the producing side, and it's going to have to come back
11:20:39 15 around and go back into the buffer. And the patent gives
11:20:42 16 more detail on how this works.

11:20:44 17 But the point of this exercise is that it's not
11:20:48 18 unidirectional or single direction. So there are examples
11:20:51 19 of the patent employing pressure pulses which is in these
11:20:55 20 claims and not having that unidirectional component. And
11:21:00 21 that's really our main issue with NanoCollect's proposed
11:21:07 22 construction. It's --

11:21:08 23 THE COURT: I mean, it's the only -- you know,
11:21:11 24 otherwise, the addition of the word unidirectional is -- I
11:21:16 25 mean, the only thing that is not necessarily -- in fact,

11:21:23 1 probably is not contemplated by your plain and ordinary
11:21:26 2 meaning.

11:21:29 3 MR. LANDERS: I actually do have one more point
11:21:31 4 on that, though, Your Honor, that the word pulse is not
11:21:33 5 actually captured by their claim because they replace
11:21:37 6 pressure pulse with the word flow. So to me that
11:21:40 7 connotes -- if I were a juror, I would be thinking of flow
11:21:43 8 as like a constant flow into the channel, and that doesn't
11:21:46 9 give me any impression that this pulsing or even a pressure
11:21:50 10 increase activity is occurring. So the word flow we also
11:21:53 11 think is problematic.

11:21:54 12 Well, there's a prosecution history that
11:21:57 13 actually differentiated the prior art based on this
11:22:02 14 requirement that a pulse is like a transient thing. But
11:22:05 15 when you use the word flow and you don't otherwise explain
11:22:07 16 that it's a transient increase in pressure, you're actually
11:22:11 17 going directionally against this intrinsic evidence.

11:22:13 18 And this right here on your screen, slide 32, is
11:22:17 19 exactly that. This is the applicants describing their
11:22:19 20 invention as opposed to the Dunaway prior art saying they're
11:22:24 21 actually defining pressure pulse here.

11:22:25 22 We think if Your Honor does want to -- if you do
11:22:27 23 want to provide an affirmative construction, this would
11:22:30 24 actually be a nice way of putting it, that a pressure pulse
11:22:33 25 is a transient increased pressure. But again, we think the

11:22:37 1 words pressure and pulse are relatively, you know, ordinary
11:22:42 2 English words that a jury could figure out on its own. But
11:22:44 3 this is much more accurate than unidirectional flow.
11:22:48 4 There's nothing in here about flow.

11:22:49 5 And in fact, I think this Dunaway prior art was
11:22:52 6 a flow device. So again, this is -- it's a bit confusing to
11:22:57 7 use the word flow is what I'm trying to say.

11:22:59 8 THE COURT: So you know, Mr. Landers, I guess
11:23:12 9 what I'm wondering about is this: As I understand it, and
11:23:18 10 perhaps I understand it incorrectly, the invention here is
11:23:24 11 focused on the fact that you can, with this pressure pulse,
11:23:32 12 select out cells or particles and send them somewhere else.
11:23:37 13 Take them out of line, so to speak, and that it allows you
11:23:42 14 to do this selectively.

11:23:48 15 The idea of a plunger and stuff going in all
11:23:53 16 directions seems to be sort of contrary to that
11:23:58 17 understanding. Can you address what I've just said?

11:24:04 18 MR. LANDERS: Yes, Your Honor. I think that
11:24:06 19 might be going to a different issue as to whether or not
11:24:07 20 this Figure 6 embodiment is operable or not. But that
11:24:13 21 this -- in claim construction what we're explaining is this
11:24:17 22 pressure pulse goes in multiple directions in some examples.
11:24:22 23 They may be -- maybe Figure 5 is a better way of looking at
11:24:25 24 it.

11:24:25 25 THE COURT: Well, so I mean, the question of

11:24:30 1 operability, would Figure 6 be operable?

11:24:40 2 MR. LANDERS: I mean, we're taking the patent at
11:24:42 3 face value. We presume it's operable. As I said,
11:24:45 4 Dr. Di Carlo didn't raise that fact. There was no evidence
11:24:47 5 in the record to suggest that Figure 6 would be inoperable.

11:24:51 6 Dr. Di Carlo -- until the sur-reply, our expert
11:24:54 7 hasn't gotten a chance to weigh in on that. I would argue
11:24:57 8 that it is operable because I would take the patent at its
11:25:01 9 word. But again, that wasn't -- we didn't get a chance to
11:25:04 10 brief that issue with the proper basis that we would need.

11:25:09 11 THE COURT: Okay. I think you were going to say
11:25:10 12 something else.

11:25:11 13 MR. LANDERS: I was just going to mention to
11:25:13 14 help clarify for this specific claim construction issue that
11:25:17 15 the Figure 5 doesn't -- this is an example of the pressure
11:25:22 16 being what would deflect the particle when the black
11:25:25 17 particle gets to that cross section that we circled in red.
11:25:28 18 The pressure is going to cause it to go upward into that top
11:25:32 19 channel. So the word flow might be confusing there, too.

11:25:34 20 I was just going to mention one more detail in
11:25:37 21 Figure 5, but that's all I have on these.

11:25:38 22 THE COURT: So one of the things that I was
11:25:40 23 curious about on Figure 5, and I'm not being critical here,
11:25:45 24 I don't recall seeing in the briefings you're saying that
11:25:51 25 the squiggly line that's, you know, got kind of an S-type

11:25:56 1 shape, that that's not unidirectional. And I take it that's
11:26:06 2 because if we think of it as compass points, sometimes it's
11:26:09 3 going northeast and sometimes it's going northwest.

11:26:15 4 Is that what you're saying about that?

11:26:18 5 MR. LANDERS: Yes, Your Honor, it would have to
11:26:19 6 because at the bottom, that's the actuator bubble. And at
11:26:22 7 the top, it's the buffer. So to get from point A to point
11:26:26 8 B, there's going to be some kind of change in direction.

11:26:29 9 THE COURT: Yeah, but that's kind of a different
11:26:32 10 concept than the pressure pulse one which is, you know, it's
11:26:46 11 like dropping a bomb on something. It just destroys
11:26:49 12 everything in sight. As opposed to sending in a cruise
11:26:53 13 missile which may, you know, change direction as for
11:26:59 14 whatever reason, but it's not just going in all directions.
11:27:05 15 It's going in a defined direction, but it's just, you know,
11:27:09 16 not always -- it's not a straight line.

11:27:13 17 MR. LANDERS: Well, yes, Your Honor, that's
11:27:14 18 exactly the problem with their construction is the pressure
11:27:17 19 pulse here is more like that cruise missile. To get that
11:27:20 20 black particle to move upward a little bit, the pressure
11:27:23 21 pulse is going to have to come back and hit it there in that
11:27:27 22 junction. So it is -- I would argue it's more like the
11:27:32 23 cruise missile that moves.

11:27:34 24 THE COURT: Right.

11:27:35 25 MR. LANDERS: It's not a bomb. You know, the

11:27:39 1 point is they're importing this unidirectional limitation
11:27:43 2 when it's just not -- it's not supported.

11:27:47 3 THE COURT: Well, I mean, you know, as I'm
11:27:49 4 listening to their argument, I mean, I think what they're
11:27:56 5 arguing is essentially -- well, I mean, I think they're
11:28:08 6 arguing, but maybe not winning the argument that, you know,
11:28:13 7 if the question is what did the inventors invent, which
11:28:16 8 there are some Federal Circuit cases that say this, they go
11:28:21 9 through all kinds of different, you know, places where the
11:28:23 10 inventor said this and the inventor said that. And they
11:28:29 11 conclude that, you know, essentially the broadest possible
11:28:34 12 reading of something is not the reading that should be
11:28:38 13 given.

11:28:41 14 But on the other hand, usually when the Federal
11:28:44 15 Circuit does that sort of analysis, there's nothing that the
11:28:52 16 other side's patentee can point to to say, well, here's
11:28:58 17 something where we have a slightly different concept, so you
11:29:01 18 know, give us everything.

11:29:04 19 So okay. Let me just hear if there's any
11:29:08 20 response from Mr. Landers.

11:29:13 21 MR. BURROWBRIDGE: From Mr. Burrowbridge?

11:29:15 22 THE COURT: No, I thought Mr. Burrowbridge --
11:29:22 23 actually, I can't remember who's on which side right now.

11:29:25 24 MR. BURROWBRIDGE: Yes, Your Honor, this --

11:29:27 25 MR. LANDERS: Yeah, this is Mr. Landers. I was

11:29:28 1 just speaking for Cytonome if that helps you.

11:29:30 2 THE COURT: Actually, that doesn't help me at
11:29:33 3 all because I have to look at the caption to see which side
11:29:35 4 is Cytonome. Defendant or plaintiff works for me. That I
11:29:40 5 understand.

11:29:40 6 But you are for the plaintiff, Mr. Landers;
11:29:43 7 right?

11:29:44 8 MR. LANDERS: Yes, Your Honor. I was just
11:29:45 9 speaking for the plaintiff.

11:29:46 10 THE COURT: Okay. Yeah. All right.

11:29:51 11 Yes, then so we went first here.

11:29:54 12 Mr. Burrowbridge, yeah, do you have something you want to
11:29:57 13 add?

11:29:57 14 MR. BURROWBRIDGE: Yes, Your Honor, a few
11:29:59 15 things, starting with this point about the prosecution
11:30:02 16 history. Defendant doesn't dispute that the pressure pulse
11:30:05 17 is a transient pressure pulse, so that's not an issue that's
11:30:09 18 in dispute for purposes of this claim construction.

11:30:12 19 Looking at Figure 5 of the '850 patent, Figure 5
11:30:17 20 makes clear that the pressure pulse is, in fact,
11:30:22 21 unidirectional. The arrows don't depict the flow itself,
11:30:25 22 rather explicitly depicts the low-resistance path.

11:30:29 23 What's clear from the corresponding description
11:30:31 24 in the specification is that only one of the depicted
11:30:35 25 bubbles -- bubble valves is the actuating bubble valve,

11:30:38 1 while the other is the buffering bubble valve. Therefore,
11:30:41 2 this disclosure confirms NanoCollect's construction. The
11:30:46 3 pressure pulse will travel as a unidirectional flow from the
11:30:49 4 actuator to the microchannel no matter which bubble valve is
11:30:52 5 actuated.

11:30:54 6 THE COURT: Okay.

11:30:55 7 MR. BURROWBRIDGE: And Your Honor, to discuss
11:30:57 8 for a minute slide 34 of Cytonome's presentation, again, the
11:31:02 9 affirmative argument here is not that Figure 6 of the '850
11:31:08 10 patent is inoperable. The affirmative argument is that it
11:31:13 11 requires as shown in NanoCollect's slide 48 that the '850
11:31:23 12 patent makes specific that the wave generator requires a
11:31:27 13 plunger, and that the plunger, in fact, creates a
11:31:31 14 unidirectional flow.

11:31:32 15 So Figure 6 of the '850 patent is consistent
11:31:35 16 with NanoCollect's construction of unidirectional flow.
11:31:39 17 It's only inoperable if you read it as Cytonome is asking
11:31:43 18 the Court to read it which is dropping a PZT actuator in the
11:31:46 19 main channel out without the supporting disclosure of the
11:31:51 20 '850 which is the plunger.

11:31:55 21 THE COURT: So Mr. Burrowbridge, in terms of me
11:32:00 22 figuring out what the Figure 6 actually shows, is that
11:32:06 23 something I can just do with my political science
11:32:11 24 background, or do I have to have experts to figure that out?

11:32:17 25 MR. BURROWBRIDGE: Well, I think both, Your

11:32:19 1 Honor, because the claims, first of all, describe the
11:32:22 2 direction of the flow. Must start again with the actuator,
11:32:25 3 and I don't know that there can be a dispute that the flow
11:32:28 4 goes from the actuator to the microchannel. So that's clear
11:32:33 5 from the literal claims themselves.

11:32:35 6 Then the patent specification confirms that
11:32:37 7 because it says that it's provided with a plunger. They're
11:32:40 8 trying to strike through that provided with plunger
11:32:43 9 disclosure to say that the PZT wave generator can act upon
11:32:47 10 the flowing liquid directly, and that's just not what the
11:32:50 11 disclosure says.

11:32:52 12 Moreover, Your Honor, our expert, Dr. Di Carlo,
11:32:55 13 did put in a declaration that makes clear that the plunger
11:32:58 14 would create a unidirectional flow towards the microchannel.

11:33:04 15 THE COURT: Okay. So should I be giving their
11:33:06 16 expert a chance to submit a declaration saying the opposite?

11:33:11 17 MR. BURROWBRIDGE: Your Honor, I don't think
11:33:12 18 it's necessary. I don't think Your Honor needs to rely on
11:33:15 19 either our expert declaration or a competing expert
11:33:19 20 declaration. This reading and this understanding of
11:33:22 21 pressure pulse is consistent with all seven asserted claims.
11:33:25 22 The only thing that they can raise is an alternative
11:33:28 23 embodiment in a single patent. So at least the construction
11:33:36 24 for pressure pulse proposed by NanoCollect should control
11:33:39 25 across six of the seven patents.

11:33:41 1 With regard to this alternative embodiment,
11:33:44 2 legally Your Honor's well positioned to determine the scope
11:33:50 3 of this claim as informed by the literal claim language
11:33:53 4 itself and the disclosure as pointed out by NanoCollect and
11:33:56 5 as drafted by Cytonome.

11:33:59 6 THE COURT: All right. Let me just ask your
11:34:03 7 counterpart on behalf of the plaintiff, do you want to
11:34:12 8 submit any declaration from your expert on what Figure 6
11:34:16 9 means?

11:34:19 10 MR. LANDERS: We'd be happy to, Your Honor, but
11:34:21 11 we think we can resolve it here. Actually, Mr. Burrowbridge
11:34:26 12 isn't exactly right. We have other evidence that could help
11:34:29 13 out here, and that is the fact that when the -- here on
11:34:31 14 slide 33 when the patentees wanted to add a directionality,
11:34:36 15 they did so here similar to claim 7 by saying the pressure
11:34:40 16 pulse is applied across the duct. So they knew how to add a
11:34:43 17 direction, they just didn't always do it because the
11:34:46 18 capturing things like Figure 5 here.

11:34:48 19 And just another point that Mr. Burrowbridge
11:34:51 20 said, the low-resistance path is what the pressure pulse is
11:34:54 21 going to follow. It has to get up to that junction to hit
11:34:57 22 the particle. So the black particle doesn't come down into
11:35:01 23 this bottom channel ever, so there's not a single direction.

11:35:04 24 I just wanted to point that out because he was
11:35:09 25 describing this figure, I think, a little bit incorrectly.

11:35:14 1 THE COURT: Okay. Well, so just on the question
11:35:15 2 of an expert declaration, I have no position other than they
11:35:23 3 submitted something in a sur-reply which, you know, I've
11:35:28 4 already said is not the way you're supposed to do it. So
11:35:35 5 it's entirely up to you whether you want to submit something
11:35:38 6 in sur sur-reply. And in fact, if you -- I mean, what do
11:35:45 7 you want to do?

11:35:46 8 MR. LANDERS: If I may, could I defer to lead
11:35:48 9 counsel here because I don't want to make a decision on
11:35:50 10 additional work product on the fly without consulting with
11:35:53 11 Mr. O'Neill?

11:35:54 12 THE COURT: Okay. Mr. O'Neill?

11:35:56 13 MR. O'NEILL: Your Honor, I would like the
11:35:58 14 opportunity to do a follow-up declaration. I'll make it
11:36:01 15 very short.

11:36:01 16 THE COURT: Well, that's fine. You can make it
11:36:05 17 short, long, but it's up to you. I didn't put any
11:36:09 18 restraints on what people did in the briefing, so I'm not
11:36:12 19 going to put any restraints on you at this point.

11:36:16 20 Would two weeks be sufficient?

11:36:18 21 MR. O'NEILL: Yes, Your Honor. Well, I assume
11:36:21 22 the expert's around, but I'm confident he is. So --

11:36:25 23 THE COURT: So why don't we do this: You have
11:36:27 24 two weeks. If there's any problem at all, you know, agree
11:36:33 25 with the other side that you get more time, and I'll sign

11:36:36 1 any stipulation giving you however much more time you need.

11:36:39 2 Okay?

11:36:40 3 MR. O'NEILL: Thank you, Your Honor.

11:36:41 4 THE COURT: All right. So on pressure pulse,
11:36:43 5 I'm not going to rule on that right now. I will take that
11:36:46 6 under advisement.

11:36:47 7 And let's do this, we've been online for an hour
11:36:51 8 and a half or so, why don't we take a ten-minute break and
11:37:04 9 start up again then.

11:37:06 10 Okay?

11:37:08 11 (Everyone said, Thank you, Your Honor.)

11:37:09 12 THE COURT: All right. Ten-minute break.

11:47:30 13 (Discussion held off the record.)

11:47:30 14 THE COURT: Okay. Well, let's get back. What
11:47:32 15 is the next thing on the list here?

11:47:37 16 MR. O'NEILL: It's otherwise sealed, Your Honor.
11:47:39 17 It's Kirt O'Neill, and with your permission, I'll take the
11:47:42 18 baton.

11:47:43 19 THE COURT: Well, sure.

11:47:45 20 MR. O'NEILL: Thomas, do you want to get us to
11:47:46 21 slide 36?

11:47:47 22 THE COURT: Let me ask first before you go,
11:47:48 23 because in the otherwise sealed, I thought the briefing is
11:47:54 24 one side was arguing about the '797 patent, and the other
11:47:58 25 side was arguing about the other patent, and you seem to be

11:48:01 1 ignoring whichever patent didn't have the language you
11:48:07 2 wanted in it. And it seemed to me that the one that
11:48:15 3 expressly said not open or not sealed to the external or
11:48:21 4 sealed to the external environment, that there was no
11:48:26 5 dispute there.

11:48:28 6 And on the other one, it didn't seem to me that
11:48:32 7 later-added lexicography had any impact at all on the
11:48:40 8 construction of an earlier term, and that otherwise sealed
11:48:47 9 ought to be given the broad reading that otherwise sealed
11:48:50 10 suggested.

11:48:51 11 In any event, that's where I was after reading
11:48:53 12 this, but go ahead, Mr. O'Neill.

11:48:59 13 MR. O'NEILL: Thank you, Your Honor. And I do
11:49:00 14 think what happened was when we started out the briefing and
11:49:03 15 the assembly of the disputed terms, the '797 patent was
11:49:07 16 listed, and the terms there were listed. But as you
11:49:11 17 observed, that patent claim has the explicit language that
11:49:14 18 these chambers are otherwise sealed from an exterior
11:49:17 19 environment.

11:49:18 20 So as the briefing unfolded, and I think by the
11:49:20 21 time we got to the last brief of the defendant, my
11:49:24 22 perception there is that they're simply arguing now about
11:49:27 23 the '283 patent claim which doesn't have that additional
11:49:30 24 clarifying language on it. So I'd like to address that and
11:49:35 25 also address Your Honor's observation about later-added

11:49:39 1 language and clarifying language.

11:49:41 2 I'll take you through what happened, but I think
11:49:43 3 the key here really is in the language of the claims, and
11:49:46 4 it's because these patents are so closely related, and
11:49:49 5 they're describing the same thing. We believe that the
11:49:52 6 claims in both of the patents should be construed the same,
11:49:57 7 and that's that it means not open to an exterior
11:50:01 8 environment.

11:50:03 9 NanoCollect's construction is narrower in that
11:50:05 10 it would prevent internal connections to other parts of the
11:50:08 11 chip. We believe that's wrong, and I'll show you why.

11:50:11 12 Thomas, could we go to slide 37?

11:50:13 13 You are correct, Your Honor, in that claim 5 of
11:50:16 14 the '797 patent, which is where the language is in that
11:50:20 15 patent, it's very explicit. It says it's otherwise sealed
11:50:23 16 from an exterior environment. I'll show you how that
11:50:26 17 language came to be.

11:50:26 18 THE COURT: So hold on, Mr. O'Neill, just a
11:50:29 19 second. Can I ask the other side: Do you agree that the
11:50:33 20 '797 patent doesn't need to be construed on this term?

11:50:40 21 MR. BURROWBRIDGE: Your Honor, NanoCollect's
11:50:42 22 construction is consistent with otherwise sealed from an
11:50:45 23 exterior environment for the '797 patent. So to the extent
11:50:48 24 Your Honor does choose to construe the term, we believe the
11:50:51 25 construction applies across those two patents.

11:50:54 1 To answer your question, Your Honor's question,
11:50:57 2 however, NanoCollect is of the position that Your Honor need
11:51:01 3 not construe the term for the '797 patent.

11:51:05 4 THE COURT: Okay. And Mr. O'Neill, do you agree
11:51:07 5 with that?

11:51:08 6 MR. O'NEILL: Well, Your Honor, I don't agree
11:51:09 7 that if you insert their construction of otherwise sealed
11:51:13 8 into the --

11:51:14 9 THE COURT: No, no, no, the last thing
11:51:16 10 Mr. Burrowbridge said, I don't need to construe it in the
11:51:19 11 '797 patent.

11:51:21 12 MR. O'NEILL: I agree with that. That I agree
11:51:23 13 with.

11:51:23 14 THE COURT: Okay. So we've resolved that one.

11:51:25 15 MR. O'NEILL: Okay. Well, let's take a look at
11:51:27 16 the '283 patent and then I'll come back and show you the
11:51:30 17 relationship. The claim language does simply say otherwise
11:51:32 18 sealed. We acknowledge that.

11:51:33 19 If we look at the specification, what it's
11:51:34 20 talking about is the chamber that's highlighted there in
11:51:38 21 orange in figures that show that it's sealed from the
11:51:42 22 external environment. And I'll take you a little bit into
11:51:45 23 the text of the specification so you can see how that's
11:51:48 24 described.

11:51:49 25 Thomas, can we go to 38?

11:51:51 1 If you dig into the specification, Your Honor,
11:51:55 2 you'll see that they're describing that chamber, which I've
11:51:58 3 highlighted in orange, as being sealed from the exterior
11:52:03 4 environment by the application of that flexible membrane on
11:52:06 5 the top. That's the blue highlighted 72. And that's all
11:52:11 6 sealed together by a seal 71.

11:52:14 7 Now, you're looking at it from the side. If you
11:52:16 8 look top down, that would be like a gasket around the
11:52:20 9 circular chamber. And indeed, the figure says what we're
11:52:25 10 doing is we're sealing it from the external environment.

11:52:28 11 That would be off the chip. That would be
11:52:30 12 sealed from the atmosphere. These things aren't going to
11:52:33 13 work as either a pressure pulse generator or an absorber if
11:52:37 14 they're vented to the atmosphere.

11:52:39 15 Thomas, can we go to the next one?

11:52:45 16 The '797 patent is very closely related, Your
11:52:50 17 Honor, and I just said we don't need to construe the
11:52:52 18 language here, but I show this to show you the similarity of
11:52:55 19 the disclosure and to show you that the phrase or the term
11:53:00 20 really needs to be construed the same across both patents.

11:53:03 21 In the '797 patent, we see the chamber there,
11:53:06 22 and we see the description of how you seal that chamber up.
11:53:09 23 Once again, you put membrane or substrate layer 40 on top of
11:53:13 24 it thereby sealing it from the exterior environment. So the
11:53:18 25 specifications are virtually identical in how they describe

11:53:22 1 this chamber and in how they describe the sealing.

11:53:25 2 Now, let me show you how the language came to be
11:53:28 3 in one claim, but not the other. The exterior environment
11:53:31 4 language came to be in one claim, but not the other.

11:53:33 5 Thomas, could we go to the next one?

11:53:36 6 Your Honor, this is prosecution from the '797
11:53:39 7 patent. This is the patent with the explicit clarifier.
11:53:44 8 And the clarification arose only because the examiner asked:
11:53:47 9 What do you mean by sealed?

11:53:48 10 The applicant said, Well, it's clearly shown in
11:53:51 11 the specification. It's sealed from the external
11:53:54 12 environment. You bond the plate over the top of the
11:53:58 13 chamber, and you seal it from the exterior environment. And
11:54:01 14 they said a person skilled in the art would know that based
11:54:04 15 on what we've written and just looking at the specification.

11:54:08 16 THE COURT: Even though what you're quoting here
11:54:11 17 refers to sealed and not otherwise sealed; right?

11:54:16 18 MR. O'NEILL: Yes, I'm going to show you the
11:54:18 19 relationship. If we look at the claim language, the claim
11:54:21 20 originally said sealed, Your Honor, and the examiner said,
11:54:24 21 Well, you know, tell me what you mean. And they said
11:54:27 22 otherwise sealed from an exterior -- external environment.

11:54:31 23 Immediately following this statement, they
11:54:34 24 amended the claim. And if we go to the next slide, we'll
11:54:37 25 see the claim amendment. So this is what became claim 5 of

11:54:46 1 the '797 patent with the explicit language in there. You'll
11:54:49 2 see it originally said a sealed first reservoir.

11:54:54 3 And as a result of the dialogue with the patent
11:54:57 4 examiner, they said, Look, we'll just make it explicit in
11:55:00 5 this patent. We're going to delete the word sealed, and
11:55:03 6 instead we'll say wherein the first reservoir is otherwise
11:55:07 7 sealed from an exterior environment.

11:55:10 8 So this claim was made, and that's why that
11:55:12 9 patent claim has the express language in it. But the
11:55:15 10 genesis of this amendment was the explanation by the
11:55:18 11 applicants that a person skilled in the art would know what
11:55:21 12 we're talking about when we say the chamber is sealed.

11:55:25 13 Okay. So Thomas, could we go to the next slide?

11:55:29 14 Your Honor, there is an argument, I think, in
11:55:33 15 Mr. Carsten's opening statement about the fact that these
11:55:36 16 patents are not related, and there's been some dialogue
11:55:40 17 about whether you can use statements in one prosecution
11:55:44 18 history to construe the term of a related patent. I do
11:55:48 19 strongly believe that when the disclosures are so similar as
11:55:52 20 the disclosures in these six patents, and more particularly
11:55:56 21 the two at issue here, that it's perfectly okay. In fact, I
11:56:02 22 think the Federal Circuit tells us you really must try to
11:56:04 23 construe the terms to have a common meaning or to have a
11:56:09 24 common disclosure. And while there are some minor
11:56:13 25 differences in the disclosures between these two patents,

11:56:17 1 the disclosures are virtually identical on the core
11:56:21 2 invention, the core embodiment that we're talking about
11:56:24 3 which is shown in the figure.

11:56:28 4 And I believe the Microsoft case that we cited
11:56:31 5 in the brief does, in fact, use later prosecution from a
11:56:36 6 closely related patent as an aid in construing a term that
11:56:42 7 appears in an earlier issued patent. So what Mr. Carsten
11:56:46 8 said about no upstream -- things don't flow upstream, I
11:56:51 9 believe that's incorrect.

11:56:52 10 The Federal Circuit has said if they're closely
11:56:55 11 related patents, we need to try to construe them together.
11:56:59 12 And the bottom line is whether we're going to have two
11:57:01 13 patents here with fundamentally different interpretations,
11:57:05 14 one that only precludes fluid openings to the environment
11:57:11 15 and another that excludes all fluid openings such as to
11:57:16 16 interior portions of the chip. And I don't believe it's
11:57:19 17 right when the disclosures are dissimilar.

11:57:23 18 And my final slide is to show you that, indeed,
11:57:27 19 there are disclosed embodiments in which there are other
11:57:31 20 fluidic connections with those chambers. In the passage
11:57:33 21 I've cited from the '797 patent, what it's talking about
11:57:37 22 here is how you fill the buffer or the actuator with gas to
11:57:42 23 set up the chip for operation in the first instance. It
11:57:45 24 says typically you would fill the main flow channel with
11:57:48 25 fluid, liquid, and then you would come back and basically

11:57:52 1 load or charge the actuator or the buffer with gas from a
11:57:59 2 reservoir that would typically be an on-chip reservoir. And
11:58:02 3 so there's got to be some other fluidic connection into the
11:58:06 4 buffer or the actuator to get it filled with gas.

11:58:10 5 So it's usually on chip, but it's not an opening
11:58:15 6 to the atmosphere. So openings to the atmosphere, external
11:58:19 7 environment are not permitted under either patent. They are
11:58:22 8 permitted under both patents.

11:58:24 9 Thank you.

11:58:26 10 THE COURT: All right. For the other side?

11:58:29 11 MR. LISTON: Thank you, Your Honor. This is Ian
11:58:31 12 Liston. May I have presenting control again, please?

11:58:31 13 Okay, Adam.

11:58:49 14 MR. BURROWBRIDGE: Okay. Looking at slide 51,
11:58:58 15 the claim language here, similar to the term pressure pulse,
11:59:01 16 explains the construction explicitly. Claim 51, the
11:59:05 17 highlighted portion, shows that the first chamber must be in
11:59:09 18 fluid communication with the duct. It also shows that the
11:59:12 19 communication must be via the first side opening wherein
11:59:16 20 that first side opening is an internal connection.

11:59:18 21 And third, other than that fluid connection via
11:59:22 22 the side opening, the chamber must be "otherwise sealed."
11:59:26 23 The first chamber includes one and only one internal side
11:59:30 24 opening which is in fluid communication with the duct.

11:59:37 25 Looking at slide 52, the first chamber in claim

11:59:41 1 1 is completely sealed off from fluid connection with a
11:59:44 2 single exception, the duct via the side opening. The first
11:59:47 3 chamber is, therefore, only unsealed from fluid connection
11:59:51 4 at the first side opening. The use of the term otherwise
11:59:54 5 makes clear that the first side opening is the only
11:59:56 6 exception to the first chamber being completely sealed from
12:00:00 7 the fluidic connection.

12:00:08 8 Turning to slide 53, the defendant's
12:00:11 9 construction is confirmed by the specification. The
12:00:13 10 specification makes clear that both the sealed chamber and
12:00:17 11 meniscus is to separate the sealed chamber from the carrier
12:00:22 12 fluid. The carrier fluid can be seen in the side channel of
12:00:26 13 24B whereas the chamber is the sealed chamber called out in
12:00:31 14 the image below.

12:00:35 15 So taking the plain, and ordinary, and literal
12:00:38 16 language of the claim terms, what you have for the '283
12:00:41 17 patent, the only one in dispute, is the first chamber in
12:00:46 18 fluid communication with the duct via the side opening and
12:00:48 19 otherwise sealed. Using NanoCollect's construction of the
12:00:51 20 term otherwise sealed, you have the first chamber in fluid
12:00:54 21 communication with the duct via a first side opening and
12:00:58 22 otherwise closed off from fluid connection.

12:01:01 23 Again, this is completely supported by the
12:01:03 24 literal claim language, the disclosure, both the written
12:01:06 25 description, and the images as seen here in the '283 patent,

12:01:10 1 Figure 1.

12:01:11 2 Cytonome attempts to argue that NanoCollect's
12:01:18 3 position is extreme. The only way that they can make that
12:01:21 4 argument is by looking at the '797 patent, and specifically
12:01:26 5 unasserted claim 5 of the '797 patent where it claims a
12:01:30 6 first reservoir wherein the first reservoir is otherwise
12:01:33 7 sealed from an exterior environment.

12:01:36 8 Cytonome argues that NanoCollect improperly
12:01:39 9 reads the phrase from an exterior environment entirely from
12:01:42 10 the claim and cannot be correct. However, even if we are
12:01:45 11 looking at the '797, which as Your Honor has appropriately
12:01:48 12 identified, we don't need to do. But even if we were to,
12:01:51 13 using NanoCollect's construction is consistent with the '797
12:01:54 14 claim as it would simply read a first reservoir wherein the
12:01:59 15 first reservoir is otherwise closed off from a fluid
12:02:01 16 connection from an exterior environment.

12:02:03 17 When the patent drafter wanted to claim an
12:02:07 18 exterior environment limitation, they did so. And they do
12:02:11 19 so in the '797 patent. However it would be improper to
12:02:14 20 import that lexicography and import that claim language all
12:02:17 21 the way up the stream, as Mr. Carsten pointed out and
12:02:21 22 imported directly into the '285 or the 283 patent.

12:02:26 23 THE COURT: I was going to say, you know, I used
12:02:28 24 the word lexicography when I started off, but I think that's
12:02:32 25 a different term. There's no actual lexicography in

12:02:36 1 relation to this; right?

12:02:38 2 MR. BURROWBRIDGE: Agreed, Your Honor. This is
12:02:39 3 the explicit claim language.

12:02:41 4 THE COURT: Right.

12:02:41 5 MR. BURROWBRIDGE: So --

12:02:41 6 THE COURT: I just wanted to clear up because
12:02:45 7 you had used lexicography perhaps in deference to what I had
12:02:48 8 said, but I think we're both using the wrong word there.

12:02:53 9 MR. BURROWBRIDGE: I agree, Your Honor.

12:02:55 10 THE COURT: But I appreciate the sucking up.

12:03:01 11 All right. Anything else from you,

12:03:03 12 Mr. Burrowbridge.

12:03:04 13 MR. BURROWBRIDGE: Yes, Your Honor. I would
12:03:05 14 just like to point out slide 56. Slide 56 is an image from
12:03:12 15 plaintiff's brief, and what they're trying to show is that
12:03:16 16 the seal in the '283 patent is a seal that's from the
12:03:20 17 external environment. And what they've done is highlight
12:03:22 18 the highlighted version or the highlighted portion at call
12:03:27 19 out 70, call out 72 and call out 71.

12:03:29 20 But again, there's no dispute that the seal
12:03:33 21 sealed from an external environment. The question is: How
12:03:36 22 do we give meaning to the explicit claim language of
12:03:39 23 otherwise sealed?

12:03:41 24 Well, there is, again, obviously, a side opening
12:03:43 25 at the meniscus 25 which interacts with the internal opening

12:03:48 1 at 24. That's necessary for the invention to work.

12:03:51 2 Otherwise sealed means that it's completely sealed off

12:03:54 3 except for that one internal connection.

12:04:00 4 I have more, but if Your Honor has no questions,

12:04:02 5 I'm happy to --

12:04:06 6 THE COURT: So the actuator could work, could it

12:04:19 7 not, having no internal openings other than the internal

12:04:26 8 opening that goes out into the channel; right?

12:04:32 9 MR. BURROWBRIDGE: Correct, Your Honor, and

12:04:33 10 that's what's required by the claims in the '283 patent.

12:04:37 11 THE COURT: And your counterpart, it could work

12:04:40 12 with just the one opening to the channel; right?

12:04:51 13 MR. O'NEILL: Are you asking me, Your Honor?

12:04:55 14 THE COURT: Yes.

12:04:56 15 MR. O'NEILL: My response would be probably not

12:04:58 16 for the preferred embodiment because how would you get the

12:05:00 17 gas in there? In other words, in the preferred embodiment,

12:05:03 18 these things are pre-charged or loaded with gas.

12:05:06 19 THE COURT: But couldn't it work like a balloon?

12:05:09 20 I mean, let's say you had a balloon attached, and you

12:05:14 21 squeezed the balloon. That could cause the pressure pulse.

12:05:17 22 You don't have to have another opening for it to work.

12:05:21 23 MR. O'NEILL: I think hypothetically it could

12:05:23 24 work, Your Honor. I think the specification at least of the

12:05:27 25 '797 patent teaches us that ideally to set it up, you want

12:05:30 1 to control that loading or that charging by metering in
12:05:33 2 some -- you know, the gas so that you've got it set up like
12:05:37 3 you need.

12:05:38 4 THE COURT: Okay.

12:05:39 5 MR. O'NEILL: I am concerned about getting a
12:05:41 6 construction that doesn't allow for the possibility of
12:05:43 7 having some set-up mechanism to initiate or charge these
12:05:47 8 things to get them running.

12:05:49 9 THE COURT: All right. Okay. So --

12:06:01 10 MR. BURROWBRIDGE: If I may respond to that
12:06:02 11 point?

12:06:02 12 THE COURT: Sure. Go ahead, Mr. Burrowbridge.

12:06:04 13 MR. BURROWBRIDGE: So looking at slide 42 of
12:06:07 14 plaintiff's slide deck, what they're pointing out here is
12:06:10 15 not the preferred embodiment. It's an alternative
12:06:14 16 embodiment. And that's made clear in the highlighting that
12:06:17 17 plaintiff has highlighted.

12:06:18 18 Moreover, it's from the '797 patent which
12:06:21 19 imports this idea that they're putting forward. It's not
12:06:22 20 from the '283 patent which does not support Cytonome's
12:06:27 21 reading.

12:06:29 22 THE COURT: Okay. So I'm going to take this
12:06:38 23 under advisement and think about it a little more, but
12:06:42 24 certainly my inclination, as I sit here right now, is that
12:06:47 25 otherwise sealed is a broad term, and it doesn't purport to

12:06:51 1 have any other limitation, and that I don't see it as being,
12:07:04 2 you know, somehow or other contrary to what the invention is
12:07:08 3 that's described in the specification. So I don't think
12:07:13 4 it's, you know, a ridiculous construction or anything. And
12:07:19 5 otherwise, that's what the plain meaning of the words
12:07:24 6 indicates is it's sealed in all other aspects. So I think
12:07:31 7 that's the way I'm going to do go, but I'm going to give
12:07:34 8 that just a little more thought.

12:07:35 9 What's next?

12:07:43 10 MR. MOFFETT: Your Honor, this is Daniel Moffett
12:07:45 11 on behalf of the plaintiff. The next term was selectively
12:07:47 12 applying.

12:07:49 13 THE COURT: Okay. Let me just get to that page.
12:07:55 14 Page 44. Okay.

12:07:57 15 MR. MOFFETT: And I wonder if we could give
12:08:01 16 control to Mr. Landers?

12:08:02 17 THE COURT: Sure.

12:08:03 18 MR. MOFFETT: Thank you.

12:08:09 19 THE COURT: You know, rather than arguing this,
12:08:12 20 why don't I just tell you that I don't think it's
12:08:14 21 indefinite. It hasn't been proven, and so I'm going to give
12:08:19 22 it the plain and ordinary meaning. I think that the fact
12:08:26 23 that there's some other thing that controls the
12:08:30 24 selectiveness or, you know, how the actuator decides to make
12:08:36 25 a selective application, I don't think that's relevant to

12:08:40 1 indefiniteness. So why don't we just skip that one and go
12:08:43 2 on to the next one.

12:08:45 3 What's next?

12:08:47 4 MR. MOFFETT: Your Honor, Daniel Moffett again
12:08:49 5 for the next term, and hopefully we can dispose of this one
12:08:51 6 as quickly because we see it as very similar. The next term
12:08:54 7 was an actuator connected to the first side channel.

12:08:58 8 THE COURT: Okay. Hold on just a minute.

12:09:02 9 MR. MOFFETT: Sure.

12:09:16 10 THE COURT: Well, this one, it may be similar,
12:09:22 11 but why don't I hear from defendant since they're the ones
12:09:27 12 who are arguing it's indefinite.

12:09:37 13 MR. BURROWBRIDGE: Ian, can you put up the slide
12:09:40 14 show, please? Is that up now?

12:09:55 15 THE COURT: I just see Mr. Landers. Now
12:09:58 16 Mr. Liston. Now it's up.

12:10:08 17 MR. BURROWBRIDGE: So if we start on slide 66,
12:10:10 18 this is the claim language. It's an actuator connected to
12:10:13 19 the first side channel. Here it's clear that connected to
12:10:16 20 requires a physical connection. And when construing patent
12:10:20 21 claims, the Court obviously must consider the literal
12:10:23 22 language of the claim.

12:10:24 23 Under Phillips, the ordinary meaning of the
12:10:26 24 claim language as understood by a person of skill in the art
12:10:28 25 may be readily apparent. Even the lay judges in a claim

12:10:31 1 construction in such cases involves little more than the
12:10:35 2 application of the widely accepted meaning of commonly
12:10:37 3 understood words.

12:10:38 4 And putting up slide 67. Again, connected to
12:10:44 5 requires a physical contact. The specification consistently
12:10:47 6 describes components that are in physical contact as
12:10:50 7 connected to. Specifically the specification here says that
12:10:53 8 the microfluidic system, the microchannel, and a sealed
12:10:57 9 gas-filled reservoir positioned adjacent to and connected to
12:11:00 10 the microchannel. This makes clear that there's a physical
12:11:03 11 connection between the gas-filled reservoir which is
12:11:06 12 positioned adjacent and connected to the microchannel.

12:11:13 13 Looking at slide 68, the specification and the
12:11:21 14 claims of the '528 patent do not identify any actuator
12:11:24 15 connected to the first side channel. Here the external
12:11:28 16 actuator is seen as call out 176, and it's directly
12:11:32 17 connected to the bubble valve. This is made clear by the
12:11:35 18 specification because it must be in order to work. The
12:11:38 19 actuator activates the bubble valve at 10A to call the
12:11:42 20 pressure variation in the reservoir 70 of the first bubble.
12:11:45 21 The activation of the bubble valve causes a transient
12:11:48 22 pressure variation in the first side passage.

12:11:54 23 So in slide 48, we'll see Cytonome's' response,
12:11:58 24 but they attempt to rewrite the claims. Claiming that the
12:12:02 25 actuator is fluidly connected to the side channel, yet the

12:12:05 1 patent drafter has used fluidically connected when it's
12:12:09 2 deemed it appropriate and has used connected to when that's
12:12:14 3 what it means. So connected to has consistently been used
12:12:16 4 as a physical connection in the '528 patent.

12:12:21 5 So it's not claimed as a fluidic connection, and
12:12:24 6 it's not described that way in the specification. And a
12:12:26 7 person of skill in the art would not understand it that way.

12:12:32 8 Your Honor, claim 22 of the '528 patent fails to
12:12:36 9 inform with reasonable certainty a person of skill in the
12:12:38 10 art the scope of the invention as it claims an actuator
12:12:41 11 connected to the first side channel. Accordingly, Your
12:12:44 12 Honor, we ask that Your Honor find this claim indefinite.

12:12:47 13 THE COURT: Okay. Thank you.

12:12:50 14 From the other side?

12:12:52 15 MR. MOFFETT: Yes, Your Honor. It's Daniel
12:12:54 16 Moffett again. I'd say initially we're not hearing an
12:12:58 17 indefiniteness argument. Essentially what NanoCollect or
12:13:02 18 the defendant is arguing is that they're in favor of a very
12:13:07 19 narrow reading of the claim language so that the
12:13:12 20 connector or so that the actuator must be physically in
12:13:15 21 contact with the side channel.

12:13:17 22 Then they go to the specification and they say,
12:13:20 23 Hey, but there's no support for that in the specification;
12:13:23 24 therefore, your claim is invalid and indefinite. That's not
12:13:27 25 the test for indefiniteness, as you know, Your Honor. We

12:13:31 1 don't have to have described a particular embodiment
12:13:36 2 explicitly in the specification for you to conclude that a
12:13:38 3 person of skill in the art would not be able to discern the
12:13:41 4 scope of the claim language itself. And again, I'd remind
12:13:44 5 you they didn't even bother to submit expert testimony
12:13:47 6 supporting that a person of skill in the art wouldn't
12:13:51 7 understand that until the sur-reply stage. So it's not even
12:13:54 8 a indefiniteness argument.

12:13:57 9 We're seeing the preface itself is flawed. The
12:14:00 10 preface being that a person of skill in the art would
12:14:02 11 construe the relevant claim terms so narrowly that the
12:14:06 12 actuator must be physically in contact with the side
12:14:10 13 channel. Our position is that the plain and ordinary
12:14:14 14 meaning, as consistent throughout the claims, throughout the
12:14:17 15 specification is there's got to be some fluidic connection.

12:14:20 16 I believe Mr. Burrowbridge took his slides down,
12:14:24 17 but I'll point out one of his slides, 67, that he cited to
12:14:30 18 support his position that connected must be adjacent to or
12:14:34 19 touching, the language that is actually on the slide from
12:14:36 20 the specification said adjacent to and connected to
12:14:41 21 suggesting that connected means something other than
12:14:43 22 actually physically touching. And that is consistent with
12:14:46 23 the specification, and we believe that's how a person of
12:14:49 24 skill in the art would read the claims.

12:14:52 25 And Mr. Landers, I don't know if you have

12:14:54 1 control, but --

12:14:56 2 MR. LANDERS: I do. Yes.

12:14:58 3 MR. MOFFETT: Okay. Go to slide 48.

12:15:03 4 MR. LANDERS: I'm there.

12:15:04 5 MR. MOFFETT: And Your Honor, a few of us, I
12:15:06 6 think Mr. Carsten, Mr. O'Neill, and myself aren't seeing
12:15:10 7 slides all the time. I don't see them. I don't know if you
12:15:12 8 see our slide 48 at this point.

12:15:13 9 THE COURT: I do. I do.

12:15:15 10 MR. MOFFETT: Okay. So essentially what -- we
12:15:17 11 believe the plain and ordinary meaning of the claim that we
12:15:20 12 have up, which is claim 22 from the '528 patent, is that the
12:15:27 13 actuator works in tandem -- that's 176 in Figure 16 -- with
12:15:32 14 that reservoir to generate a pressure pulse. And that
12:15:36 15 actuator is connected to the side channel in that regard.

12:15:38 16 The fluidically connected, they work together.
12:15:41 17 That's how -- every example really in a specification. And
12:15:46 18 if we go to the next slide, Mr. Landers, 49.

12:15:51 19 MR. LANDERS: I'm there.

12:15:51 20 MR. MOFFETT: Again, this is from the
12:15:53 21 specification of the '528 patent describing what we're
12:15:55 22 talking about that the actuator activates the first bubble
12:16:00 23 valve, and that activation causes a transient pressure
12:16:04 24 variation in that first side channel. These features are
12:16:08 25 fluidically connected. That's how it's consistently

12:16:10 1 described in the specification.

12:16:12 2 You have NanoCollect's, the defendant's position
12:16:14 3 being essentially that they're going to read the claim so
12:16:17 4 narrow that it's not consistent with the specification; and
12:16:23 5 therefore, the claim is indefinite. But that's not the
12:16:25 6 test.

12:16:25 7 I would actually put it the other way. If
12:16:27 8 you're reading the claims so narrowly that you can't find
12:16:29 9 examples in the specification, perhaps that means you need
12:16:32 10 to consider the specification, and your reading is
12:16:35 11 incorrect. So essentially we come down to they haven't met
12:16:39 12 their burden to show that it is indefinite under the law
12:16:43 13 essentially.

12:16:43 14 Moreover, the underlying premise they have is
12:16:46 15 incorrect. We believe they're reading the claim too
12:16:49 16 narrowly.

12:16:50 17 THE COURT: And would you say, Mr. Moffett, that
12:16:53 18 basically what they're doing is saying, and I may not be
12:16:57 19 using the exact right words here, but an actuator connected
12:17:01 20 to the first side channel should be construed as an actuator
12:17:06 21 directly connected to the first side channel. And you're
12:17:10 22 essentially saying, no, an actuator directly or indirectly
12:17:13 23 connected to the first side channel is really what it means?

12:17:16 24 MR. MOFFETT: That's correct, Your Honor, and
12:17:20 25 that would be consistent with the specification because

12:17:22 1 fluidic connection -- in fact, in the claim we showed you,
12:17:25 2 it doesn't even talk about that reservoir. It's talking
12:17:29 3 about the actuator and its effect, and it's really
12:17:32 4 talking -- the claim is written as the actuator working in
12:17:35 5 tandem with the reservoir to generate that. So the
12:17:38 6 connection is there, and they're reading it so narrowly that
12:17:43 7 it has to touch is what we find --

12:17:46 8 THE COURT: So I'm going to deny the defendant's
12:17:48 9 request that I find this to be indefinite. I'm going to
12:17:53 10 give the phrase its plain and ordinary meaning. And in this
12:17:59 11 context, I think the plain and ordinary meaning of connected
12:18:02 12 is broader than directly connected.

12:18:06 13 All right. What's next?

12:18:11 14 MR. LANDERS: Your Honor, this is Mr. Landers
12:18:12 15 for plaintiff again. The next term is this microsorter
12:18:15 16 term.

12:18:15 17 THE COURT: Okay. Hold on just a minute.

12:18:17 18 MR. LANDERS: Yes, Your Honor.

12:18:22 19 THE COURT: Page 67. All right. Yeah.

12:18:39 20 So why doesn't defendant tell me in a nutshell
12:18:42 21 why they think this is indefinite because it looked pretty
12:18:46 22 reasonable to me in the sense of it discusses a microsorter.
12:18:52 23 It says it has a switching region. It says it has a
12:18:56 24 microfluidic channel, and that the micro -- actually, I
12:19:06 25 forget right now. But in any event, something is

12:19:09 1 fluidically coupled to four different things, three outputs
12:19:12 2 in the switching region.

12:19:13 3 What's the problem here?

12:19:17 4 MR. CARSTEN: This is Doug Carsten on behalf of
12:19:20 5 defendant. I'm happy to address this.

12:19:22 6 Mr. Liston, if you could put up our slides. I'd
12:19:25 7 like to start on slide 75.

12:19:27 8 You're right. There's lot of words here, Your
12:19:28 9 Honor, but a lot of words don't make it definite. Here, I
12:19:32 10 sat down and tried to orient myself based upon this claim
12:19:37 11 language, the respective orientation of these particular
12:19:44 12 items.

12:19:46 13 Mr. Liston, I can't see. Your Honor, my screen
12:19:49 14 says all windows are minimized. Do you have slide 75 before
12:19:52 15 you?

12:19:52 16 THE COURT: I have a slide. I can't see the
12:19:54 17 number because I think you're covering that up, but I
12:19:57 18 suspect it's slide -- I can't move anything on my screen,
12:20:02 19 but I have something which is actually just the term right
12:20:06 20 now.

12:20:10 21 MR. CARSTEN: Could I have slide 75,
12:20:12 22 Mr. Liston, please? The title should say "Indefinite:
12:20:15 23 Three Possibilities(A)."

12:20:16 24 THE COURT: Nope. Don't have that.

12:20:19 25 MR. CARSTEN: Okay.

12:20:22 1 MR. LISTON: I'll try stopping and restarting.

12:20:24 2 THE COURT: Yeah, Mr. Liston, my impression is
12:20:27 3 that this actually came up with the last term. Somehow or
12:20:31 4 another yours seem to be frozen on whatever the first slide
12:20:34 5 is that you pick, and it doesn't seem to be switching as you
12:20:38 6 move along.

12:20:42 7 MR. CARSTEN: So Your Honor, the claim requires
12:20:44 8 a microfluidic chip. And so if we -- I can probably just do
12:20:48 9 it on the fly here, Your Honor. This is old school, Your
12:20:55 10 Honor.

12:20:55 11 THE COURT: Well, now I've got the "Indefinite:
12:20:57 12 Three Possibilities" up.

12:20:59 13 MR. CARSTEN: There you go. Well, we've saved
12:21:01 14 ourselves from everyone having to look at my stick figures,
12:21:04 15 so I think we're all ahead of the game.

12:21:06 16 So I sat down and tried to figure out the way
12:21:10 17 that these things come together. Microfluidic chip, I drew
12:21:14 18 a box. That's the microfluidic chip.

12:21:16 19 Next is the claim requires there to be a
12:21:19 20 microsorter. And I looked at the specification. What's a
12:21:22 21 microsorter? There isn't some passage in the specification
12:21:26 22 that says microsorter number whatever that you can go back
12:21:29 23 to the figures and see.

12:21:30 24 So I drew it as a box. We know that this
12:21:34 25 microsorter has to have a switching region. Again, I go

12:21:37 1 back to the specification. Hopefully that will guide me to
12:21:40 2 the figures and let me see what it looks like. It doesn't.

12:21:45 3 There is the term switching region as for
12:21:49 4 reference, but I can't find anything that says switching
12:21:52 5 region number whatever. So I look more carefully. And at
12:21:57 6 column 4, I find this passage. In the illustrative
12:22:01 7 embodiment, the processing region contains a series 150 of
12:22:07 8 switches for separating particles determined by detectors in
12:22:13 9 the detection region 120.

12:22:15 10 Okay. Seems to me like for switching region,
12:22:19 11 you know, that series of switches 150 is a good place to
12:22:23 12 start. I go to Figure 1 which is what this passage at
12:22:27 13 column 4 is referring to. I don't find 150 anywhere. It's
12:22:30 14 just not there. 106 is there. 140 is there. No 150.

12:22:35 15 So I'll draw it as a box. I know the
12:22:38 16 microsorter has to have it. I know from the claim that
12:22:42 17 there also has to be a microfluidic channel. But here we've
12:22:45 18 got the first ambiguity: Is that microfluidic channel
12:22:48 19 within the microsorter or separate from the microsorter? So
12:22:54 20 I know from this claim that the microfluidic channel has to
12:22:57 21 be fluidically coupled, directly and physically connected to
12:23:02 22 a sample input, a keep output, a waste output, and the
12:23:07 23 switching region.

12:23:07 24 We've got two competing constructions wherein
12:23:09 25 the microsorter has only a switching region versus the

12:23:15 1 microsorter has both a switching region and a microfluidic
12:23:18 2 channel. I can't tell the difference between the two of
12:23:21 3 them. I think from the claim language, the fact that this
12:23:25 4 microsorter element is written as one paragraph that the
12:23:30 5 microsorter has both.

12:23:32 6 That's not what's reflected in indefinite
12:23:35 7 possibility A. That's what's reflected in indefinite
12:23:39 8 possibility B. I can't distinguish between those two.

12:23:43 9 But going further, the claim says a microsorter
12:23:46 10 having a switching region and a microfluidic channel. Two
12:23:50 11 things that are fluidically coupled to a sample input, a
12:23:55 12 keep output, a waste output, and the switching region.

12:23:58 13 Now, I've drawn these, items A and B, as simply
12:24:03 14 requiring a direct connection between the microfluidic
12:24:07 15 channel and the switching region whether or not that
12:24:11 16 microfluidic channel is within the microsorter or not.

12:24:14 17 And so there's a third possibility. And the
12:24:18 18 third possibility is where the fluidic coupling, that direct
12:24:22 19 connection has to happen between both the -- between the
12:24:26 20 switching region and the microfluidic channel, in which case
12:24:30 21 you get to a third possibility. And this third possibility
12:24:34 22 contains in itself an ambiguity because not only does the
12:24:38 23 switching region then have to be connected, fluidly coupled
12:24:42 24 to the sample input, the microfluidic channel, in the keep
12:24:47 25 input and the waste output, it has to be directly connected,

12:24:53 1 fluidically coupled to itself. And that's the third
12:24:55 2 possibility.

12:24:56 3 And under Media Rights where you have a
12:24:59 4 situation where you've got three or more than two plausible
12:25:03 5 claim constructions, and there's no guidance to help you,
12:25:07 6 that's indefinite.

12:25:09 7 Now, I get that Cytonome has in their slides
12:25:13 8 presented for the first time where they think the switching
12:25:16 9 region is, and they say, No, no, no, this is obviously
12:25:19 10 definite now. But I will say that this is not the first
12:25:22 11 time in the case. We've already seen some shifting
12:25:24 12 positions.

12:25:26 13 At slide 53, they identify these two bubbles
12:25:31 14 from the '188 patent, Figure 5A, as the switching region.
12:25:35 15 That is absolutely inconsistent with the position taken by
12:25:43 16 Cytonome in their infringement contentions in this case.

12:25:46 17 So Your Honor, we've got three competing
12:25:49 18 plausible constructions. We don't know. The patent doesn't
12:25:53 19 guide us in any way between these three things as to which
12:25:58 20 one is correct. That's indefinite under Media Rights and
12:26:02 21 the case law.

12:26:05 22 THE COURT: All right. Thank you. Mr. Landers?

12:26:12 23 MR. LANDERS: Yes, Your Honor. I'm trying to
12:26:14 24 share my screen here. Can you see it, Your Honor?

12:26:30 25 THE COURT: I can see slide 51.

12:26:37 1 MR. LANDERS: Thank you. This is Mr. Landers
12:26:39 2 for plaintiff. I do want to comment on one thing that
12:26:41 3 Mr. Carsten said and that was that this is a situation where
12:26:45 4 we have three plausible constructions. Actually, if you
12:26:48 5 read Dr. Di Carlo's declaration, which was the basis for
12:26:51 6 those stick figures that you put up on the screen, he
12:26:56 7 actually said that his own second and third constructions
12:26:59 8 are either nonsensical or read out a limitation. So those
12:27:03 9 aren't actually plausible constructions.

12:27:04 10 So what we're actually dealing with here is this
12:27:07 11 first interpretation that Dr. Di Carlo has. And if you look
12:27:11 12 at the figure, although Mr. Carsten said he looked through
12:27:16 13 and through for a figure, there's actually one right here in
12:27:18 14 the patent which is Figure 5A.

12:27:20 15 And Cytonome is not switching positions. The
12:27:24 16 switching region is where the sorting takes place, so that's
12:27:28 17 right there where we've labeled in pink. And a person of
12:27:30 18 skill could look at this figure and tell exactly what's
12:27:32 19 going on with this claim.

12:27:34 20 You have a microsorter here that's located on
12:27:36 21 this larger microfluidic chip that's going to consist of
12:27:40 22 several of these microsorters. And this microsorter has a
12:27:45 23 switching region, and then there's also a microfluidic
12:27:47 24 channel which we've shown here in blue. And it's formed in
12:27:50 25 the microfluidic chip. The chip is just this glass

12:27:52 1 substrate, and this is just a portion of the chip.

12:27:54 2 And then you can see one example here of how
12:27:57 3 this blue microfluidic chip can be fluidly coupled to a
12:28:01 4 sample input, a keep output, a waste output, and the
12:28:06 5 switching region. So Your Honor, we think that looking at
12:28:09 6 the specification, and as you know, indefiniteness must be
12:28:12 7 viewed in light of the specification, we point you to this
12:28:16 8 example.

12:28:16 9 And I'd also note that Dr. Di Carlo's
12:28:19 10 declaration didn't even point to this figure. He just went
12:28:23 11 about trying to construe the claims in a vacuum. And his
12:28:26 12 first construction, even on the natural reading, appears
12:28:30 13 correct, and it aligns perfectly with one of the figures in
12:28:33 14 the patent.

12:28:34 15 THE COURT: All right. Hold on just a second,
12:28:36 16 Mr. Landers. Let me just look at this while everybody is
12:28:41 17 quiet for a second.

12:28:57 18 The microsorter is the whole thing here in
12:29:10 19 Figure 5A?

12:29:13 20 MR. LANDERS: It could be a subset of this. We
12:29:15 21 have to maybe get an expert to weigh on, but that's the way
12:29:19 22 we're looking at it is that this is an example of a
12:29:21 23 microsorter. It's where the sorting happens.

12:29:24 24 THE COURT: Okay. So hold on a minute.

12:29:39 25 Okay. All right. Is there anything that

12:29:51 1 defendant wants to say in response to this?

12:29:56 2 MR. CARSTEN: Yes, Your Honor. So thank you for
12:29:57 3 the opportunity.

12:29:58 4 First, you know, you asked what's the
12:30:00 5 microsorter. I agree. What is the microsorter here?

12:30:02 6 I heard Mr. Landers say that this figure,
12:30:05 7 Figure 5A, lines up perfectly with possibility one, but
12:30:11 8 that's not true. If you assume that the microsorter is that
12:30:15 9 entire box, then that actually lines up with item B, with
12:30:21 10 variant B which Mr. Landers denigrated saying it read things
12:30:26 11 out of the claim.

12:30:27 12 This is exactly the problem with the claim, Your
12:30:29 13 Honor. It is indefinite. If this whole thing isn't the
12:30:34 14 microsorter, which the microsorter itself is not defined in
12:30:39 15 any particular way in the patent, and it's not given a
12:30:43 16 number. And the switching region is not identified in any
12:30:47 17 particular way in the patent with a number in connection
12:30:50 18 with Figure 5A. All of these red items that have been
12:30:55 19 added, that's made for litigation attorney argument.
12:30:58 20 They're saying this is the switching region, but there's
12:31:00 21 nothing in the patent to say that it is. And that switching
12:31:04 22 region, when you look at column 4, you see it's a series of
12:31:08 23 switches. Okay. That's Item 150.

12:31:10 24 You go back and you say, Okay, I want to look
12:31:13 25 for this Item 150 in Figure 1, and it's just not there. So

12:31:18 1 there are two absolutely competing -- at least two
12:31:22 2 absolutely competing constructions where this microfluidic
12:31:25 3 channel is a part of the microsorter. Another one where it
12:31:31 4 isn't. And even if you give them that as a free pass, you
12:31:38 5 still have the problem of the two components of the
12:31:42 6 microsorter being fluidically coupled. That means directly
12:31:47 7 connected together, adjacent and connected to all of these
12:31:50 8 separate items.

12:31:51 9 And the issue of the switching region being
12:31:54 10 connected to itself. So Your Honor, I mean, I think that
12:31:57 11 this claim screams for indefiniteness because of this very
12:32:01 12 problem where you've got multiple competing constructions,
12:32:04 13 and apparently Mr. Landers and Cytonome can't even say which
12:32:08 14 one of those competing constructions is correct. They said
12:32:12 15 the first one is A, and then later, well, this is the whole
12:32:16 16 microsorter, so it's got to be B. This is exactly what
12:32:20 17 we're talking about.

12:32:23 18 THE COURT: All right. Well, I'm going to deny
12:32:24 19 this as finding this as indefinite. For one thing, I
12:32:27 20 noticed the defendant's briefing on this in their briefing
12:32:31 21 was three sentences with no expert evidence. That's just
12:32:35 22 insufficient.

12:32:37 23 Second is that I certainly think at this point
12:32:42 24 the drawing or the picture, that Figure 5A, with the
12:32:46 25 captioning put on by the plaintiff all seems very plausible

12:32:52 1 to me, so I don't see indefiniteness having been proven by
12:32:58 2 clear and convincing evidence at this point. And so I'm
12:33:04 3 going to deny that and go with the plain and ordinary
12:33:09 4 meaning.

12:33:09 5 What's next?

12:33:09 6 MR. CARSTEN: Next, Your Honor, two terms which
12:33:18 7 are in some sense a bit related. First is from the stream
12:33:19 8 of particles. The other term after that is carrier fluid.

12:33:25 9 My colleague, Mr. Burrowbridge will be
12:33:26 10 presenting those on behalf of defendants. I'm not sure
12:33:29 11 whether you want to hear from us first or from plaintiff
12:33:31 12 first, but at your pleasure, Your Honor.

12:33:32 13 THE COURT: Hold on just a minute. So hold on.

12:33:54 14 So the two terms may be related, but I thought
12:34:05 15 defendant's proposal for from the stream of particles was
12:34:09 16 pretty much of a non-starter. I think the stream of
12:34:16 17 particles refers to the particles, not the carrier fluid and
12:34:23 18 the particles together. I think the continuous moving
12:34:30 19 procession, you know, only a patent lawyer would think that
12:34:33 20 was an improvement on the stream.

12:34:38 21 But on the other one, the carrier fluid, my take
12:34:48 22 was this is the one where the plaintiff was trying to get
12:34:53 23 later lexicography as the definition and the later
12:34:58 24 lexicography in some other patent. And I thought that
12:35:08 25 defendant's proposed construction was pretty reasonable. So

12:35:16 1 that's where I was thinking.

12:35:19 2 So why don't plaintiff go first since two of
12:35:24 3 these -- so that's what I'm thinking as I start, so why
12:35:28 4 don't you go from there, plaintiff.

12:35:31 5 MR. O'NEILL: Your Honor, it's Kirt O'Neill for
12:35:32 6 the plaintiff. I was actually assigned from the stream of
12:35:35 7 particles, and Mr. Landers is going to do the carrier fluid.
12:35:39 8 And I can't see the slides, but if Mr. Landers will put up
12:35:43 9 slide 54, I will give it a try. I hope that you can see
12:35:49 10 them.

12:35:49 11 THE COURT: I can. Yes, I see it.

12:35:53 12 MR. O'NEILL: I'll be brief, Your Honor. We
12:35:54 13 think this claim term would be understandable by a lay
12:35:58 14 person who would have no problem with it. This is claim
12:36:01 15 language that speaks of deflecting the particles out of the
12:36:03 16 stream of particles. The defendant's construction is
12:36:07 17 overwrought and unhelpful. And my real problem is that it
12:36:10 18 suggests -- in fact, it may actually linguistically require
12:36:13 19 that the particles be deflected out of the fluid flow
12:36:17 20 altogether, and that's simply not how the patent works.

12:36:21 21 I have slides that show portions of the spec.
12:36:25 22 Why don't we show --

12:36:26 23 THE COURT: You know what, why don't you just
12:36:28 24 save that. I think you're going to win this one.

12:36:32 25 MR. O'NEILL: Okay. That's why I took it, Your

12:36:34 1 Honor.

12:36:34 2 THE COURT: Ha. Ha. Yeah, got it.

12:36:38 3 All right. Mr. Burrowbridge, you want to weigh
12:36:44 4 in on the harder one for your side?

12:36:46 5 MR. BURROWBRIDGE: Yes, Your Honor.

12:36:49 6 Mr. Liston, if you can start with slide 80,
12:36:51 7 please. As he brings up the slide, I'll just discuss that
12:37:05 8 our proposed construction is from the continuous moving
12:37:08 9 procession of fluid in particles. The continuous moving
12:37:12 10 procession, we think that that is helpful for the fact
12:37:16 11 finder. But given Your Honor's comments, I'll focus on the
12:37:21 12 latter part of the construction that the stream of particles
12:37:24 13 must require both a fluid and particles.

12:37:29 14 Can Your Honor see the slide? I cannot.

12:37:32 15 THE COURT: Not right now.

12:37:51 16 MR. BURROWBRIDGE: I think the slides are fairly
12:37:53 17 important for a few of the concepts here, but I can go ahead
12:37:56 18 and get started. Hopefully we can --

12:37:57 19 THE COURT: You know what, so first off, I
12:38:00 20 apologize. You know, when I'm in the courtroom, one side is
12:38:03 21 sitting on one side, and the other side is sitting on the
12:38:06 22 other side. They don't all just appear on the screen. And
12:38:09 23 so connecting your names with which side you're on is not
12:38:14 24 something that I've done very well today.

12:38:18 25 Basically I'm going to construe the from the

12:38:21 1 stream of particles to have its plain and ordinary meaning.
12:38:24 2 I don't think the fluid should be included in it, and I
12:38:28 3 don't think the continuous moving procession is helpful in
12:38:32 4 any way.

12:38:33 5 So why don't we go to the one that I actually
12:38:38 6 for a change think that the defendant might have the better
12:38:42 7 of it which is the carrier fluid one.

12:38:52 8 MR. LANDERS: Your Honor, this is Mr. Landers
12:38:53 9 for plaintiff. I'm just checking to see that you can see my
12:38:56 10 slides.

12:38:56 11 THE COURT: I can see it. Yes.

12:38:59 12 MR. LANDERS: Okay. So this is a situation
12:39:01 13 where we weren't sure why NanoCollect was asking for the
12:39:04 14 construction they asked for. We couldn't figure it out.
12:39:06 15 But based on our analysis of the case law, we thought that
12:39:09 16 the right thing to do was to use a lexicography from the
12:39:13 17 '850 patent and provide that express definition across the
12:39:16 18 patents. And I'll explain why on the next slides.

12:39:21 19 So here on the left, that's from that express
12:39:26 20 definition, a sheath of compatible liquid surrounding a
12:39:29 21 particle for carrying one or more particles through a duct
12:39:32 22 or channel.

12:39:32 23 THE COURT: So when was the express definition
12:39:34 24 written?

12:39:36 25 MR. LANDERS: Your Honor, I do acknowledge it

12:39:37 1 was after the '528 patent. But in light of the Microsoft
12:39:42 2 case that's cited on page 15 of our brief, of the joint
12:39:46 3 brief, that case also says that the later -- the later
12:39:52 4 patent constructions also apply earlier.

12:39:55 5 THE COURT: Does it say that later lexicography
12:39:57 6 applies earlier?

12:39:59 7 MR. LANDERS: Well, just by -- the way we saw it
12:40:02 8 was by reasoning. If you're going to apply them
12:40:04 9 consistently across the patent, and you're applying the
12:40:07 10 lexicography to the '850, then you should express --

12:40:10 11 THE COURT: What sense does that make? When did
12:40:15 12 the '528 patent issue? Wasn't that like 2005?

12:40:20 13 MR. LANDERS: That sounds right. I'm not
12:40:22 14 exactly sure, Your Honor.

12:40:24 15 THE COURT: So you're a person of ordinary skill
12:40:26 16 in the art in 2005 reading the '528 patent and trying to
12:40:29 17 figure out the metes and bounds. And you know, some years
12:40:33 18 later, the inventor writes, Oh, the metes and bounds are
12:40:38 19 this, and I'm going to put it in quotation marks, and that's
12:40:41 20 what you should have understood in 2005.

12:40:44 21 How can that possibly be right?

12:40:49 22 MR. LANDERS: The point is well taken, Your
12:40:50 23 Honor, that that would be difficult. But in light of the
12:40:54 24 case law, that's the way we interpreted it and --

12:40:56 25 THE COURT: Yeah. Well, so if you didn't have

12:41:03 1 the lexicography argument, would you have anything at all?

12:41:12 2 MR. LANDERS: You know, like I said, I
12:41:13 3 couldn't -- we couldn't determine why defendant's
12:41:16 4 construction was put forth, what it's going to. We could
12:41:19 5 leave it as plain and ordinary meaning. The only reason we
12:41:22 6 offered this construction was, again, because of the
12:41:23 7 lexicography.

12:41:25 8 THE COURT: Okay. Well, so I am going to reject
12:41:28 9 your lexicography because I don't think you've cited a case,
12:41:34 10 and I don't think the Federal Circuit would say that
12:41:39 11 postdated lexicography can possibly act retroactively to say
12:41:51 12 what some earlier term meant. It just, to me, makes no
12:42:00 13 sense at all.

12:42:02 14 In terms of the defendant's construction,
12:42:10 15 basically what you're saying is they proposed this
12:42:12 16 construction, and we don't know what they're up to. Is that
12:42:15 17 right?

12:42:18 18 MR. LANDERS: We don't know what they're up to.

12:42:19 19 THE COURT: Okay. Well, let's go to the people
12:42:21 20 who know what they're up to and see what they're up to.

12:42:28 21 MR. BURROWBRIDGE: Thank you, Your Honor.
12:42:30 22 Mr. Liston, if you can start us on slide 90, that would be
12:42:30 23 great.

12:42:35 24 MR. LISTON: I'll give it a shot.

12:42:37 25 MR. BURROWBRIDGE: Thank you, sir.

12:42:37 1 Your Honor, do you have a slide entitled
12:43:10 2 Microfluidic Cell Sorting --

12:43:10 3 THE COURT: Well, mine is indicating that it's
12:43:12 4 still loading. I don't have anything yet. It says you're
12:43:20 5 sharing a desktop, but right now I just see a black box.

12:43:44 6 Well, so while he's working on that,
12:43:48 7 Mr. Burrowbridge, what is your construction of carrier fluid
12:43:59 8 accomplishing over the plain meaning of carrier fluid?

12:44:05 9 MR. BURROWBRIDGE: So Your Honor, as Cytonome
12:44:07 10 opened this Markman presentation, they explained that these
12:44:11 11 microfluidic systems work with the concept that's called
12:44:14 12 laminar flow. And hopefully we'll get to see slide 90, but
12:44:18 13 what slide 90 is is it illustrates what is a laminar flow.
12:44:22 14 And as Cytonome described it, they described it as ribbons
12:44:26 15 of streams. And that's what you would see. That's
12:44:28 16 consistent with the image in slide 90, Your Honor.

12:44:31 17 So 90, so what the '528 claim 18 claims is a
12:44:37 18 channel for conveying a stream of particles in a carrier
12:44:41 19 fluid. So the carrier fluid is fluid that's separate from
12:44:50 20 the stream of particles. Your Honor, the stream of
12:44:53 21 particles as disclosed in the patent begins -- let's see --

12:45:00 22 THE COURT: Well, so Mr. Burrowbridge, what
12:45:03 23 you've just said, I'm not going to be able to parrot the
12:45:06 24 words back to you exactly, but you said the '528 patent says
12:45:12 25 something like particles in a carrier fluid. So the first

12:45:16 1 part of your construction of carrier fluid is fluid, which
12:45:19 2 is not much of a construction of the fluid part, containing
12:45:22 3 the particles which seems to be inherent in the claim.
12:45:27 4 Right?

12:45:30 5 And then you've got the moving through the
12:45:32 6 system, and I would -- you know, is the '528 a method claim
12:45:41 7 or a device?

12:45:56 8 MR. BURROWBRIDGE: Your Honor, it's a device
12:46:00 9 claim.

12:46:00 10 THE COURT: Okay. So it just strikes me that
12:46:08 11 the plain and ordinary meaning of carrier fluid in the
12:46:11 12 context of this patent probably is about what you've
12:46:14 13 proposed, and I'm just trying to think why construing a term
12:46:18 14 that seems pretty obvious from the claim as to what it is,
12:46:26 15 why we need to change it into a bunch of other words.

12:46:31 16 MR. BURROWBRIDGE: Understood, Your Honor. Your
12:46:33 17 Honor, there's actually a really important dispute that
12:46:35 18 underlies both this term and the stream of particles term.

12:46:39 19 THE COURT: And is that this laminar flow that
12:46:41 20 you're talking about?

12:46:42 21 MR. BURROWBRIDGE: Correct, Your Honor. So what
12:46:43 22 happens is there's laminar flow that forces and conveys the
12:46:48 23 stream of particles through the microchannels. So the
12:46:51 24 carrier fluid is outside of the stream of particles. The
12:46:55 25 stream of particles is not just a particle. It's introduced

12:46:59 1 into the system with liquid.

12:47:01 2 That liquid and the particles form the stream of
12:47:03 3 particles. And it remains in a laminar flow which can be
12:47:07 4 seen in, I believe, every disclosure in every patent that
12:47:14 5 shows the stream of particles, shows them in a line
12:47:19 6 connected -- essentially connected dots in a line. And
12:47:23 7 that's because as laminar flow keeping the stream of
12:47:26 8 particles in the same fluid that exists when it's introduced
12:47:29 9 into the system.

12:47:31 10 So I, unfortunately, can't see the slide, Your
12:47:33 11 Honor, but what you would have is maybe three streams where
12:47:35 12 you would have carrier fluid introduced around a sensor
12:47:41 13 stream of particles.

12:47:43 14 THE COURT: And so what you're saying is the
12:47:46 15 stream of particles, the particles, you could look at them
12:47:53 16 as whatever the cell is, or you could look at them as the
12:47:58 17 cell with some kind of coating around them?

12:48:02 18 MR. BURROWBRIDGE: Well, not a coating, Your
12:48:03 19 Honor. The patent makes clear that the particles are
12:48:07 20 introduced into the system in a solution. Let me see.

12:48:15 21 So '528 at column 12, line 7, it says, In a
12:48:20 22 suspension introduced by the first supply duct 162. A
12:48:23 23 suspension is a liquid that contains particles. And because
12:48:27 24 the system works with laminar flow, that suspension in that
12:48:30 25 liquid contains the particles which is the stream of

12:48:32 1 particles remains in a center line. Whereas the carrier
12:48:36 2 fluid surrounds and conveys that stream of particles through
12:48:41 3 the system.

12:48:42 4 Your Honor, this is a really important point,
12:48:44 5 and it is a really important probably point of dispute
12:48:46 6 between the parties because what the claims do is they claim
12:48:55 7 an actuator for selectively applying the pressure pulse.
12:48:57 8 And this is the important part, to the stream to deflect a
12:49:01 9 particle in the stream of particles from the stream of
12:49:05 10 particles.

12:49:06 11 So there's two options for how a microfluidic
12:49:09 12 system can do that. There's a prior art process called
12:49:13 13 Dunaway. And that process selectively redirects the flow
12:49:15 14 path of an entire stream fluid. To distinguish from the
12:49:20 15 Dunaway reference, Cytonome claims the ability to "deflect a
12:49:23 16 particle in the stream of particles from the stream of
12:49:26 17 particles."

12:49:27 18 So Your Honor, because there's laminar flow,
12:49:29 19 it's important because the claim language specifically
12:49:32 20 claims it that way and claimed it that way to overcome prior
12:49:39 21 art references that the particle itself is deflected from
12:49:43 22 the stream of particles. So if it's deflected from the
12:49:47 23 stream of particles, what it's -- again, are you able to see
12:49:51 24 the slides yet or no, Your Honor?

12:49:52 25 THE COURT: I'm sorry, I can't.

12:49:55 1 MR. BURROWBRIDGE: Well, if you look at the '528
12:49:56 2 patent, and I don't know if you have that in front of you
12:49:59 3 either, but Figure 17A, 17B and 17C make this explicitly
12:50:04 4 clear, both from the disclosure and from the claim language.
12:50:08 5 And what you see is laminar flow coming into the main
12:50:12 6 channel from the left. The particle goes up the dotted
12:50:17 7 line. So the stream of particles is moving due to the
12:50:21 8 pressure pulse perpendicular to the main channel flow, and
12:50:25 9 then it's being pushed out of the channel because it's a
12:50:29 10 selective particle that the system wants to keep. At that
12:50:31 11 point, a single particle is being deflected from the stream
12:50:34 12 of particles.

12:50:35 13 If Your Honor looks at Figure 17C, you can see
12:50:39 14 that the stream of particles continues down to the waste
12:50:42 15 receptacle whereas a particle is deflected. That's how the
12:50:48 16 claim language reads, and that's how Cytonome has
12:50:50 17 distinguished their invention from the prior art.

12:50:53 18 So Your Honor, that's what this stream of
12:50:55 19 particles is, and that's how it relates to the carrier
12:50:58 20 fluid. The carrier fluid construction that we put forward
12:51:01 21 is a construction that gives meaning to the stream of
12:51:07 22 particles. The claim itself is a channel for conveying a
12:51:10 23 stream of particles in a carrier fluid.

12:51:13 24 So it's clear from the laminar flow, the way
12:51:16 25 that the system works, that once the particle is selected,

12:51:22 1 it is deflected from the stream of particles to the carrier
12:51:25 2 fluid and is then taken out of the stream of particles. We
12:51:31 3 have a lot of support from the specification in our slides.
12:51:35 4 Your Honor, there are several images that confirm this
12:51:39 5 reading.

12:51:41 6 Your Honor, I agree that Cytonome's construction
12:51:44 7 is not sufficient, and it doesn't appropriately describe
12:51:49 8 what's going on in the '528 patent. And we don't take issue
12:51:52 9 with the lexicography from the '850 patent, Your Honor, but
12:51:56 10 what they're trying to do is they're trying to import
12:51:59 11 limitations from the '850 to be read in the '528 explicitly.

12:52:03 12 THE COURT: All right. So I'm not going to do
12:52:05 13 that, but what I'm trying to get at is I'm not -- and you
12:52:12 14 know, I'm sorry that I, for some reason or another, am not
12:52:15 15 seeing your slides, but I'm still unconvinced. As I
12:52:24 16 understand what you're saying, Mr. Burrowbridge, it sounds
12:52:28 17 to me like what you're trying to say is that the way the
12:52:33 18 invention works is, you know, particular particles are
12:52:41 19 knocked out of the stream of particles, but the ones that
12:52:46 20 are not knocked out keep on going. And that the prior art I
12:52:52 21 gather, maybe you knocked out the entire stream or
12:52:55 22 something, but I'm not seeing how you're -- and so you're
12:53:00 23 trying to avoid them saying knocking out the whole stream is
12:53:06 24 covered by the patent or something like that.

12:53:10 25 And so I'm not seeing, though, how your

12:53:13 1 construction of carrier fluid helps you in that regard.

12:53:20 2 MR. BURROWBRIDGE: Yes, Your Honor. So the way
12:53:21 3 that it helps us, so again, the claim read with our
12:53:25 4 construction would be a channel for conveying a stream of
12:53:28 5 particles in a fluid containing the particles. So by
12:53:32 6 containing means by focusing or by conveying the stream of
12:53:36 7 particles through the system.

12:53:37 8 So what it's doing is it's making clear that the
12:53:40 9 stream of particles is a different laminar flow system in
12:53:43 10 the system from the carrier fluid. And that would be
12:53:46 11 understood as I believe Mr. O'Neill explained because there
12:53:51 12 are separate ribbons of laminar flow through the system.
12:53:55 13 And that's an important concept to distinguish between the
12:53:59 14 prior art, which they explicitly prosecuted their patents
12:54:03 15 around, and now what we believe they're trying to do with
12:54:08 16 their claim construction.

12:54:08 17 And I understand that Your Honor is not thinking
12:54:11 18 that it's appropriate to import the lexicography, and you're
12:54:14 19 correct. It's not appropriate.

12:54:16 20 But it also shows what they're trying to do.
12:54:18 21 They're trying to say that a carrier fluid is a compatible
12:54:21 22 liquid surrounding a particle such that the liquid, no
12:54:25 23 matter where the particle is, is surrounded by a carrier
12:54:28 24 fluid. And that's just not true, Your Honor. Because of
12:54:30 25 the laminar flow, the stream of particles is distinct from

12:54:34 1 the carrier fluid until a particle is deflected from the
12:54:37 2 stream of particles. For that point it exits the stream of
12:54:40 3 particles and goes into a carrier fluid.

12:54:46 4 THE COURT: If I understood what you just said
12:54:52 5 correctly, you said, Here's plaintiff's nefarious plan.
12:55:00 6 They want to argue that the particle is completely
12:55:07 7 surrounded by some other liquid and, you know, we oppose
12:55:16 8 that, so we've got our construction.

12:55:20 9 But I don't see how your construction says
12:55:23 10 anything, one way or the other, about whether or not the
12:55:26 11 particle is completely surrounded by some other liquid.

12:55:34 12 MR. BURROWBRIDGE: Your Honor, that was our
12:55:35 13 intent and that's our understanding. What might be more
12:55:39 14 clear is if carrier fluid is construed to be fluid conveying
12:55:45 15 the stream of particles moving through the system. We think
12:55:48 16 that's consistent with what we proposed. But I think it's
12:55:51 17 not only consistent, probably more accurate as to how it's
12:55:54 18 described and disclosed in the specification. And that tees
12:55:59 19 up, I think, the dispute maybe between the parties a little
12:56:02 20 bit more such that the factfinder could make a determination
12:56:05 21 on this point.

12:56:07 22 THE COURT: Okay. All right. Does the
12:56:14 23 plaintiff have anything extra to say about this?

12:56:18 24 MR. LANDERS: It sounds like it should still be
12:56:19 25 plain and ordinary meaning because I'm not really seeing

12:56:22 1 where he's going with that, but I have no more in the way of
12:56:25 2 argument with respect to this term.

12:56:28 3 THE COURT: Okay. So here's the thing, I do
12:56:45 4 reject the plaintiff's proposed construction for the reasons
12:56:48 5 that I've already said. I'm going to have to go back and
12:56:58 6 look at the claim.

12:57:04 7 I take it, Mr. Burrowbridge, that you're saying
12:57:10 8 more or less the carrier fluid -- you know, if we were --
12:57:19 9 the reason for construing carrier fluid the way you've done
12:57:23 10 it is -- would you -- it's not because there's lexicography
12:57:31 11 that says that's what carrier fluid means in this patent.
12:57:37 12 Shouldn't I just be giving carrier fluid essentially its
12:57:40 13 plain and ordinary meaning in the context of the patent?

12:57:43 14 MR. BURROWBRIDGE: Your Honor, our concern with
12:57:50 15 that is that there's a real dispute between the parties
12:57:52 16 right now. The dispute --

12:57:54 17 THE COURT: Well, I understand there's some kind
12:57:56 18 of dispute. I don't fully understand the dispute. But you
12:58:04 19 know, in the absence of either lexicography or something
12:58:09 20 that approaches disclaimer, you go with the plain and
12:58:12 21 ordinary meaning.

12:58:14 22 And is your construction different than the
12:58:21 23 plain and ordinary meaning, Mr. Burrowbridge?

12:58:26 24 MR. BURROWBRIDGE: Your Honor, what our
12:58:27 25 construction attempts to make clear is that the carrier

12:58:30 1 fluid is different than the stream of particles. And as
12:58:33 2 Cytonome agrees, the system works with laminar flow.

12:58:36 3 So if there's laminar flow, which there is, then
12:58:40 4 the carrier fluid is distinct from the stream of particles.
12:58:42 5 And that's clear by the claim language itself which says a
12:58:45 6 channel for conveying a stream of particles in a carrier
12:58:48 7 fluid.

12:58:48 8 Our concern is --

12:58:49 9 THE COURT: Well -- no. Go ahead.

12:58:54 10 MR. BURROWBRIDGE: Well, our concern, Your
12:58:55 11 Honor, is if carrier fluid is just given its plain and
12:58:58 12 ordinary meaning, there's still a dispute. Even though
12:59:00 13 Cytonome agrees that there's laminar flow, there still seems
12:59:03 14 to be a dispute between whether or not the stream of
12:59:06 15 particles is carrier fluid or if more accurately it's a
12:59:10 16 separate laminar flow.

12:59:15 17 THE COURT: All right. So I have one more
12:59:17 18 question for the plaintiff on this. Is there something
12:59:20 19 wrong with defendant's proposed construction?

12:59:26 20 MR. LANDERS: I can't identify anything
12:59:29 21 particularly wrong with it, but it sounds like they're going
12:59:32 22 to make -- possibly make an argument against the plain and
12:59:35 23 ordinary meaning, and I think that can't be right. I
12:59:38 24 honestly can't see where they're going with this.

12:59:40 25 THE COURT: Well, in terms of the plain and

12:59:43 1 ordinary meaning, is their proposed construction the plain
12:59:46 2 and ordinary meaning?

12:59:51 3 MR. LANDERS: I feel more comfortable with an
12:59:53 4 expert weighing in on that, but I feel like it's a common
12:59:58 5 term in this field, and there's no need to construe it
01:00:02 6 expressly just because they're going to use it for some
01:00:06 7 angle.

01:00:07 8 THE COURT: All right. Well, I'm going to
01:00:12 9 reserve judgment on defendant's proposed construction.
01:00:17 10 Because of technological difficulties, I haven't gotten
01:00:22 11 defendant's full argument presented to me right now.

01:00:28 12 You know, I'm having trouble seeing that there's
01:00:30 13 any difference between carrier fluid which I would think,
01:00:36 14 based on what I'm hearing in the context of the patent,
01:00:40 15 seems to be pretty self evident, and defendant's proposed
01:00:49 16 construction which sounds to me like the plain meaning. But
01:00:59 17 I don't see how it actually helps any, so I'm going to take
01:01:05 18 that under advisement.

01:01:06 19 Do we have any more terms?

01:01:10 20 MR. BURROWBRIDGE: No, Your Honor. That's it.

01:01:11 21 THE COURT: Oh, joy. Okay.

01:01:14 22 Well, first off, thank you, all of you. This is
01:01:20 23 the first time that I have tried to do a Markman or, in
01:01:24 24 fact, any kind of argument by video conference. But you
01:01:31 25 know, starting a Markman and starting at the hard end of, I

01:01:35 1 mean, I guess short of an evidentiary hearing. So I
01:01:39 2 appreciate it because I think I have the impression that
01:01:42 3 numerous counsel have been in touch with my staff testing
01:01:45 4 things out and trying to get them to work. And I think
01:01:50 5 it's, for the most part, worked pretty well other than some
01:01:54 6 occasional blips with the defendant's slides being able to
01:02:01 7 move along, and I'm not sure why that is.

01:02:07 8 I do want to, just before I leave you all, just
01:02:10 9 revisit one thing which I believe Mr. Carsten mentioned at
01:02:22 10 the beginning which is the number of asserted claims. When
01:02:30 11 does plaintiff plan to reduce the number of asserted claims
01:02:35 12 in some more reasonable number like, say, 20?

01:02:41 13 MR. O'NEILL: Your Honor, it's Kirt O'Neill for
01:02:43 14 the plaintiff. We were certainly hopeful that we could get
01:02:45 15 your construction order and then make appropriate reductions
01:02:47 16 at that point.

01:02:49 17 THE COURT: Okay. And that's a fair comment.

01:02:56 18 In terms of expert discovery, when does that
01:02:59 19 start? Anybody?

01:03:09 20 MR. O'NEILL: Good question.

01:03:09 21 THE COURT: I forget. Did I just continue
01:03:11 22 everything in this case or continue some things? I forget.
01:03:13 23 I'm continuing lots of things in lots of cases. Did I just
01:03:17 24 do some postponing in this case, or are you still on the
01:03:20 25 track you've been on, whatever the track that is?

01:03:24 1 MR. CARSTEN: Yes, Your Honor. I am sorry.

01:03:24 2 MR. O'NEILL: That's okay.

01:03:27 3 MR. CARSTEN: I don't know if anyone else is
01:03:28 4 talking. This is Mr. Carsten.

01:03:31 5 Your Honor, you did extend out some of the fact
01:03:33 6 discovery deadlines for us in the gallant hope that we will
01:03:38 7 actually be able to take depositions in person as opposed by
01:03:42 8 Zoom video conference and so forth. And I don't believe
01:03:44 9 that that's actually done anything with respect to the
01:03:49 10 overall schedule. Although Your Honor, if you would prefer
01:03:55 11 to push things out, obviously, that's not a problem for us.

01:03:58 12 THE COURT: No. I was just wondering because
01:04:00 13 someone just said an extended fact discovery or maybe you
01:04:02 14 just said it. But usually if you extend fact discovery,
01:04:06 15 then most of the time then, you know, there's a ripple
01:04:15 16 effect.

01:04:17 17 MR. CARSTEN: We've done our best, Your Honor,
01:04:18 18 to prevent or avoid the ripple effect insofar as it would
01:04:22 19 affect you and your schedule with respect to dispositive
01:04:25 20 motions and the trial date.

01:04:27 21 MR. SMITH: This is Rodger Smith. The fact
01:04:29 22 discovery and opening expert reports are both currently set
01:04:33 23 in August of this year.

01:04:35 24 THE COURT: Okay. Well, so I think I resolved
01:04:39 25 seven of these, and I think I took three under advisement.

01:04:44 1 And I'm getting papers on two of the things that I took
01:04:49 2 under advisement in two weeks. I'm getting the declaration,
01:04:52 3 and I'm getting the proposal from the plaintiff on, I think,
01:04:57 4 buffer. So we will endeavor to resolve the other three
01:05:02 5 matters, resolve the three remaining matters fairly
01:05:09 6 promptly. And when I've done that, I will ask you all to
01:05:12 7 submit some kind of proposed Markman order.

01:05:16 8 And I think that you all ought to talk between
01:05:24 9 yourselves, but I think it's -- Mr. Carsten, and I'm kind of
01:05:28 10 opening -- well, you tell me right now, if you can, do you
01:05:32 11 think after I've finished giving the Markman order, you
01:05:36 12 could reduce the number of asserted claims to 20 in, say,
01:05:42 13 three weeks after that?

01:05:45 14 MR. CARSTEN: Your Honor, if you're asking me,
01:05:46 15 since I represent defendants, I'd love to get rid of them
01:05:49 16 all.

01:05:49 17 THE COURT: Okay. Sorry.

01:05:50 18 MR. CARSTEN: Plaintiff may want to weigh in on
01:05:53 19 this.

01:05:53 20 THE COURT: Good point. Mr. O'Neill.

01:05:55 21 MR. O'NEILL: I do think so. I think it's a
01:05:57 22 very reasonable approach at this point that we do within
01:06:00 23 three weeks after your order.

01:06:01 24 THE COURT: Okay. Well, that will give me
01:06:03 25 incentive to get the order out there.

01:06:06 1 All right. Is there anything else to talk about
01:06:07 2 right now? All right.

01:06:15 3 MR. CARSTEN: Your Honor, nothing offhand. The
01:06:16 4 only thing I would say as an update is there are now seven
01:06:19 5 IPRs filed on each one of the patents-in-suit, and so that's
01:06:22 6 progressing as well.

01:06:24 7 THE COURT: And when you say "filed," do you
01:06:26 8 mean they haven't gotten to institution or denial of
01:06:30 9 institution yet?

01:06:32 10 MR. CARSTEN: That's exactly right, Your Honor.

01:06:33 11 THE COURT: And so were all of these filed in
01:06:38 12 roughly the same time?

01:06:40 13 MR. CARSTEN: Yes, Your Honor, they were.

01:06:41 14 THE COURT: And how long ago was that?

01:06:42 15 MR. CARSTEN: About two months ago, Your Honor.

01:06:45 16 THE COURT: Oh, so May, June, July. So around
01:06:51 17 about Labor Day is when you'll be expecting institution
01:06:55 18 decisions?

01:06:56 19 MR. CARSTEN: Exactly, Your Honor, right around
01:06:57 20 the time that we're starting up with expert discovery and
01:07:00 21 closing out fact discovery.

01:07:02 22 THE COURT: Okay. This case is young enough so
01:07:06 23 that your IPRs were timely?

01:07:10 24 MR. CARSTEN: Yes, Your Honor.

01:07:11 25 THE COURT: Okay. All right. Well, that's

01:07:14 1 always a good piece of information to have in the back of my
01:07:17 2 mind, though I don't think it will affect anything at least
01:07:22 3 for the near future.

01:07:25 4 Okay. Well, plaintiff, I will expect you to
01:07:32 5 reduce down to 20. I have no idea, I haven't heard any
01:07:37 6 complaints from plaintiff about prior art. But after the
01:07:43 7 plaintiff reduces, depending on how much prior art defendant
01:07:47 8 has asserted, the parties ought to meet and confer and see
01:07:51 9 about the defendant possibly reducing the number of its
01:07:54 10 invalidity arguments. But I have no idea how many there
01:07:58 11 are, but that's a good thing for you all to talk about, too.

01:08:04 12 Okay?

01:08:06 13 MR. CARSTEN: We're expecting that, Your Honor,
01:08:07 14 and intend to fully participate in that kind of conversation
01:08:11 15 to narrow the case as appropriate.

01:08:12 16 THE COURT: All right. Well, thank you all.
01:08:15 17 Everybody connected with this case is remaining healthy?
01:08:20 18 Everyone is healthy?

01:08:21 19 (Everyone said, Yes, Your Honor.)

01:08:23 20 THE COURT: Okay. Well, that's the most
01:08:25 21 important thing, so keep at it.

01:08:26 22 All right. I'm going to hang up now. Thank
01:08:28 23 you.

01:08:29 24 (Everyone said, Thank you, Your Honor.)

25 I hereby certify the foregoing is a true and

1 accurate transcript from my stenographic notes in the
2 proceeding.

3 /s/ Heather M. Triozzi
4 Certified Merit and Real-Time Reporter
U.S. District Court

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