

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,

Figure 1.

Cytonome attempts to argue that NanoCollect's position is extreme. The only way that they can make that argument is by looking at the '797 patent, and specifically unasserted claim 5 of the '797 patent where it claims a first reservoir wherein the first reservoir is otherwise sealed from an exterior environment.

Cytonome argues that NanoCollect improperly reads the phrase from an exterior environment entirely from the claim and cannot be correct. However, even if we are looking at the '797, which as Your Honor has appropriately identified, we don't need to do. But even if we were to, using NanoCollect's construction is consistent with the '797 claim as it would simply read a first reservoir wherein the first reservoir is otherwise closed off from a fluid connection from an exterior environment.

When the patent drafter wanted to claim an exterior environment limitation, they did so. And they do so in the '797 patent. However it would be improper to import that lexicography and import that claim language all the way up the stream, as Mr. Carsten pointed out and imported directly into the '285 or the 283 patent.

THE COURT: I was going to say, you know, I used the word lexicography when I started off, but I think that's 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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