

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

HONORABLE HERNAN D. VERA, U.S. DISTRICT JUDGE PRESIDING

BIOMEDICAL DEVICE CONSULTANTS &
LABORATORIES OF COLORADO, LLC,

Plaintiff,

Vs.

VIVITRO LABS, INC.,

Defendant.

No. CV23-00867-HDV

REPORTER'S TRANSCRIPT OF PROCEEDINGS

MOTION HEARING

LOS ANGELES, CALIFORNIA

THURSDAY, AUGUST 17, 2023

MIRIAM V. BAIRD, CSR 11893, CCRA
OFFICIAL U.S. DISTRICT COURT REPORTER
350 WEST FIRST STREET
FOURTH FLOOR
LOS ANGELES, CALIFORNIA 90012
MVB11893@aol.com

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A P P E A R A N C E S

ON BEHALF OF THE PLAINTIFF,
BIOMEDICAL DEVICE CONSULTANTS
& LABORATORIES OF COLORADO,
LLC, :

GREGORY S. TAMKIN
SHANNON BJORKLUND
DORSEY & WHITNEY, LLP
1400 WEWATTA STREET
SUITE 400
DENVER, CO 80202-5549

ON BEHALF OF THE DEFENDANT,
VIVITRO LABS, INC., :

WARREN J. THOMAS
JOHN HARBIN
MEUNIER CARLIN AND CURFMAN,
LLC
999 PEACHTREE STREET NE
SUITE 1300
ATLANTA, GA 30309

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1 LOS ANGELES, CALIFORNIA; THURSDAY, AUGUST 17, 2023; 1:30 P.M.

2 ---

3 THE CLERK: Calling item five, CV-23-04291,
4 Biomedical Device Consultants, et al, vs. ViVitro Labs, Inc.
01:29PM 5 Counsel, your appearances, please.

6 MR. TAMKIN: Good afternoon, Your Honor.

7 Greg Tamkin and Shannon Bjorklund of Dorsey &
8 Whitney on behalf of BDC Labs. Also with us, Your Honor, is
9 our client who is the CTO and founder of BDC Labs, Craig
01:30PM 10 Weinberg. Good afternoon.

11 THE COURT: Good afternoon.

12 MR. THOMAS: Good afternoon, Your Honor. I'm
13 Warren Thomas. With me is my colleague John Harbin of the
14 firm Meunier Carlin & Curfman for ViVitro.

01:30PM 15 THE COURT: Good afternoon. Thank you for all
16 coming in person. We are here for plaintiff's motion for a
17 preliminary injunction. I know this was put together and
18 filed many months ago, and you all asked for an earlier
19 hearing. I tried to accommodate because I understand the
01:30PM 20 stakes.

21 I know that you all wanted that opportunity there
22 to present evidence, but we were not able to accommodate
23 that. So we've gone through the briefs extensively, but I'm
24 going to allow everyone to present their arguments in detail.
01:30PM 25 And if you have anything that you'd like to show me by way of

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1 on the screen, I'm happy to look at that as well.

2 I'll have questions that I reserve the right to ask
3 during the argument as well, so I'll be -- I might be active.

4 So let's begin. That would be you, Mr. Tamkin. Go
01:31PM 5 ahead.

6 MR. TAMKIN: Good afternoon again, Your Honor.
7 Greg Tamkin on behalf of BDC Labs. Before I begin, I do have
8 a presentation. It's up on the screen. I have a hard copy
9 for the Court if that would be something that would be
01:31PM 10 helpful.

11 THE COURT: Maybe you could leave it and I'll look
12 at it after, but I have it on the screen here so I can follow
13 along as you -- as you speak.

14 MR. TAMKIN: Perfect. Then I'll do that since I
01:31PM 15 brought them all the way. You might want them.

16 Obviously I have a PowerPoint presentation, but I
17 welcome questions. I'm here to help the Court. I do
18 appreciate that this case was filed in roughly April of this
19 year. It was filed in a different district. It has been
01:32PM 20 transferred to here.

21 It was actually transferred to a different judge.
22 When Your Honor took the bench, I think it was transferred to
23 you. We do really appreciate having the opportunity to
24 present. Of course, if there are any questions that the
01:32PM 25 Court has for us that an evidentiary hearing would be

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1 helpful, of course, we would welcome an evidentiary hearing.

2 This case, though, Your Honor, is one where if
3 there's ever a situation where a preliminary injunction
4 should be entered in a patent case, it's this one. This is a
01:32PM 5 situation where we have BDC, Biomedical Device Consultants
6 Laboratories, who is a small company, was a small company,
7 even smaller back in about 2008 when they started inventing;
8 came out with a product that disrupted the market.

9 Let's just start by making sure we're all on the
01:33PM 10 same page as to what the product is. It is a heart valve
11 testing device. And that is, we all understand there are
12 heart valves that are synthetic heart valves that are put
13 into people.

14 These devices test those heart valves at an
01:33PM 15 accelerated pace so that when a heart valve goes into a
16 human, that heart valve -- or, not that heart valve but the
17 type of heart valve has been tested, tested such that it will
18 last over five years. Obviously you can do that over five
19 years.

01:33PM 20 Alternatively you can do it at an accelerated pace
21 and do it in something like six months. That's the area that
22 BDC got into in the cardiac device testing area. And this is
23 a case where it's a very small market. There are very few
24 players, and BDC came in and disrupted the market.

01:33PM 25 There were really two main competitors on the

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1 market in 2008, 2010: a company called ViVitro, who is the
2 defendant in this case, and another company called Dynatek.
3 Over -- BDC launched this product. That product quickly over
4 five years of a very, very small company became the dominant
01:34PM 5 player in the market. It was a disruptive technology, and
6 BDC took the market.

7 When you have a situation -- and it overtook the
8 market, and it has its patents. You have a situation where
9 there's a small market, a market that is highly dependent
01:34PM 10 upon research and development and innovation. This is an
11 innovation-based market where BDC came in and with its
12 innovations was able to provide a new product that did
13 something very different in the market and was able to be
14 successful.

01:34PM 15 When you have that situation, you're going to get
16 -- and you have somebody who comes in and infringes the
17 patent and a competitor like ViVitro, a significant
18 competitor like ViVitro, one who has a significant reputation
19 in the market as well, when that party comes in and attempts
01:35PM 20 to infringe a patent, that is the situation where the Federal
21 Circuit says that's the appropriate course or appropriate
22 situation for an injunction because it hurts R&D.

23 It causes -- in a small market with incumbency
24 effects, it causes loss of market share and there will be
01:35PM 25 irreparable harm. Those are the factors that create

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1 irreparable harm.

2 I've told you a little bit about what BDC is and
3 how they were developed. This was a small company. It's
4 still a relatively small company that today dominates the
01:35PM 5 market. As can you see on there, as in the briefs, there is
6 really no question about that. There's no question that BDC,
7 it has 80 to 85 percent of the U.S. market and 70 to
8 75 percent of the global market.

9 So we're in a situation where we're here because
01:36PM 10 there's infringement. There's infringement, and there's
11 really not much of a defense to infringement. There's some
12 invalidity defense, but I think the invalidity defense will
13 easily step away. So with that, we're asking the Court for
14 an injunction.

01:36PM 15 I'm going to go through the typical discussion now
16 with respect to infringement, with respect to invalidity, and
17 with respect to irreparable harm. Then we'll get hopefully
18 to the balance of the harms and the other tests.

19 So I told you what the patent -- what the
01:36PM 20 technology is and what the patent -- now I'll turn to what
21 the patent does.

22 The patent, the main feature of this patent is it
23 allows a testing device that is a little bit different than
24 the ones in the past. The ones in the past would move a
01:36PM 25 valve through fluid in order to test that valve or,

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1 alternatively, would use something called a swashplate design
2 that I'll get to later that essentially sloshed water around
3 in a container that also opened and closed the valves.

01:37PM 4 This was a new system that was going to make a
5 stationary valve and push fluid through that valve, similar
6 to how the valve works in the human body where the heart is
7 squeezed and fluid moves through the bloodstream through that
8 valve.

01:37PM 9 The unique features or one of the unique features
10 of the '935 patent is that it more closely was mimicking how
11 things work in the human physiology, and what this patent
12 talks about is a design that actually does push fluid through
13 the valve and acts more closely to human physiology.

01:38PM 14 So the patent talks about a whole variety of
15 features in the particular device, and what I have there is a
16 couple of examples of the patent. This is actually Fig. 6 in
17 the patent, but it's highlighted.

01:38PM 18 What the patent talks about, because you're pushing
19 fluid, driving fluid through the system, it creates pressure.
20 Fluid doesn't condense, but it creates pressure. And when
21 you're creating pressure with the piston or the pump, you're
22 creating that pressure, and that pressure needs somewhere to
23 go.

01:38PM 24 THE COURT: Mr. Tamkin, I was looking at this in
25 preparing, but I didn't check the numbers. The valve itself

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1 on the left-hand side, is that the yellow --

2 MR. TAMKIN: No. Let me explain. That's where I
3 wanted to go with this. This is exactly what I thought we
4 would need to be doing because it's not as -- it's a
01:38PM 5 complicated drawing.

6 So let's start. I will show you where the valve
7 is. I think I can just circle right on here. The valve is
8 right there. If you see the little flap, I think the valve
9 is 230, if you see that; 229 is the holder and 230 is where
01:39PM 10 the valve is.

11 So what happens is this piece on the bottom, right
12 here (indicating), that piece, Your Honor, is the area where
13 the fluid comes into contact with the drive mechanism or the
14 motor. The motor is behind that, but that's the drive
01:39PM 15 mechanism. That in this case pushes up; and when it pushes
16 up, the fluid has to go somewhere.

17 What it does is it goes in what's called the fluid
18 distribution chamber. The fluid distribution chamber is the
19 area that is directly above, if you will, that yellow area,
01:39PM 20 the yellow circle on the bottom.

21 THE COURT: And it goes left, right, and center at
22 the same time?

23 MR. TAMKIN: No. It goes left and right. It will
24 go left and right, and what it will do is it will go up and
01:39PM 25 pass through either of those two valves in this particular

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1 embodiment. It gets to the valve. And then on the top side
2 of the valve is what's called the fluid return chamber. I'm
3 using these terms because these are all the terms in the
4 claim. I'm really going through claim 1.

01:40PM 5 So you have the fluid distribution chamber that is
6 fluidly connected to the drive mechanism. That's the yellow.
7 You then get to the valve. And on the other side of the
8 valve in claim 1, it describes that you have the fluid return
9 chamber.

01:40PM 10 Then fluidly connected to that return chamber is
11 both -- well, it's an excess volume area and also a fluid
12 return conduit. The fluid return conduit is the middle where
13 the fluid will return back down the middle, and there's a
14 different type of valve there at the bottom, but that's the
01:40PM 15 fluid return conduit in this particular example.

16 What the key to this, the whole discussion that
17 we're going to have today, Your Honor, is the excess volume
18 area that -- where the fluid can go when the piston is -- or,
19 the motor is driven.

01:41PM 20 So if we turn to the one on the right now,
21 Your Honor, that shows an example where the mechanism has
22 been pushed up a little bit, elevated a little bit in this
23 drawing. And what happens as a result of that, of course, is
24 the fluid has to go somewhere in this closed system.

01:41PM 25 Where it goes in this case is what's called an

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1 excess volume area, and that is the area in dark blue at the
2 top of this figure right here. That's an area that was
3 filled with gas, probably air, but filled with gas. Then
4 that area then accepts the excess volume that is being driven
01:41PM 5 when the system is under pressure or under compression. It's
6 under compression when the piston is driving the fluid into
7 the system -- if that makes sense.

8 So this is -- there's two -- you know, in any
9 patent you have to describe a preferred embodiment of your
01:42PM 10 patent. This is one of the two preferred embodiments of the
11 patent.

12 Now, the --

13 THE COURT: Let me stop you there. I wasn't a
14 patent lawyer in private practice. I was a business
01:42PM 15 litigator. I appreciate what you're saying, but I will have
16 some questions.

17 So when you say one of two preferred embodiments,
18 tell me a little bit more about that. What is the legal
19 effect of that?

01:42PM 20 MR. TAMKIN: The legal effect is every single
21 patent, you must enable the patent. You must show that you
22 possessed the idea. You must possess the invention. So what
23 you do is you show examples of your invention.

24 There's not an example that is -- it's not
01:43PM 25 something that is claimed -- well, it is something that's

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1 claimed. It's not an example, the only example of the
2 claims, but it is an example of your invention. Your
3 invention is what you claim, and one example of that, or in
4 this case two examples of that, are described.

01:43PM 5 That's a very key point here, Your Honor, because
6 what you need to always be careful of when you're doing claim
7 construction or when you're analyzing a patent is you don't
8 limit your claims to the preferred embodiment unless the
9 inventor specifically told you to do that.

01:43PM 10 So, for example, if the inventor was his own what's
11 called lexicographer, the inventor says: When I say valve, I
12 mean a pig valve. Well, then you would say: In that case
13 then I'm going to limit this invention to pig valves and not
14 any kind of valve, for example.

01:43PM 15 In this case the inventor did not do any of that.
16 There's no specific limitation. I'm defining this term in a
17 unique way. So you don't read a preferred embodiment into
18 the claims. The claims cover the invention overall, and
19 certainly the preferred embodiment helps you understand the
01:44PM 20 claims but doesn't necessarily limit the claims.

21 THE COURT: All right. Thank you.

22 MR. TAMKIN: So that's what we're talking about
23 here and we'll get here is what this excess volume area is.
24 It's important to understand when we're looking at what an
01:44PM 25 excess volume area is, which I'm sure you've read all about in

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1 the briefs, is it's the claimed excess volume area.

2 I can have all sorts of excess volume area.

3 There's an excess volume area arguably in the back of the
4 room where there's nobody sitting. There's extra space.

01:44PM 5 THE COURT: But excess to what?

6 MR. TAMKIN: That's exactly -- that's a great
7 question, Your Honor. It's an excess volume area because
8 there's a volume of fluid in this invention, a volume of
9 fluid that has to go somewhere when that drive stroke is
01:45PM 10 pushing forward. So what the excess volume area does, if we
11 look at the claims -- if we go to the next slide.

12 Thank you.

13 I have to clear it. There we go.

14 This is claim 1. Claim 1 tells us what the excess
01:45PM 15 volume area does. It has to be capable of operating at an
16 accelerated pulse rate -- because these are accelerated
17 testers -- wherein the excess volume area is in fluid
18 communication with the return chamber.

19 So it has to be in communication with that area on
01:45PM 20 the back or open side of the valve. When the valve is open,
21 the fluid goes through and has to be there, and it has to
22 provide a volume, provide a space for storing a volume of
23 test system fluid when the test system fluid is under
24 compression.

01:46PM 25 So let's flip back to our picture again on the

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1 previous slide, Your Honor. What this has to do, the extra
2 volume area has to provide a volume, a spatial area. Volume
3 is the three-dimensional word for area. It has to provide an
4 area where, when that piston is driven, the fluid that
01:46PM 5 doesn't compress will go.

6 And that's what we have in these. That's what
7 we're showing in these two different diagrams. On the left,
8 when the piston is down, there is open space on the top of
9 the left. On the right side, when the piston is driven
01:46PM 10 forward, that fluid gets pushed and then it goes into that
11 excess volume area.

12 It is a space that can accept that fluid when under
13 compression. That's what the claim, the bottom part of the
14 claim -- if we can go back to the next slide -- that's what
01:47PM 15 that claim talks about. It's an -- it's really the bottom
16 three lines.

17 It's a -- provides a volume for storing another
18 volume of test system fluid when the test system fluid is
19 under compression. When that piston is driven forward, there
01:47PM 20 is going to be excess volume, and this is an excess -- this
21 is a space at volume to hold that excess fluid. That's what
22 the claims are about.

23 This was very important because if you're trying to
24 drive fluid through a valve like a heart and how it works in
01:47PM 25 that kind of a system and that's what you want to mimic, you

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1 want to drive that fluid forward. But when you do that in a
2 closed system and it has to be a closed system to make the
3 pressures right and things like that so you're mimicking the
4 human body, you're going to create that extra volume.

01:48PM 5 If you don't do that and you have a closed system,
6 it's either going to break the system, or your motor is not
7 going to be strong enough to pump it, or it's going to
8 explode theoretically. What you're trying to do is you're
9 trying to handle that volume when the piston drives. What
01:48PM 10 are you going to do?

11 So what it says, what the patent says, is you leave
12 a -- you create an excess volume area to handle that fluid.
13 That's what the patent is about.

14 Then the patent has additional claims as well.
01:48PM 15 I've gone through claim 1. Claim 1 talks about all of the
16 different aspects of it. Then you have the dependent claims
17 in the patent. Those dependent claims talk about various
18 different modifications or additions that you may have.

19 So here's an example where you say you have --
01:49PM 20 we're talking about dependent claim 9. Dependent claim 9
21 says it's everything that claim 1 has. It has all of these
22 elements, my invention, and also it has a -- it would be
23 where the excess volume area comprises a compliance chamber
24 defining a cavity within the fluid return chamber.

01:49PM 25 In other words, there's this excess volume area.

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1 And this time what I mean by excess volume area, it's going
2 to be a compliance chamber, something that's different,
3 something that has another meaning or a more detailed meaning
4 than an excess volume area.

01:49PM 5 That's very important because ultimately I think
6 ViVitro's argument on infringement is that, well, the excess
7 volume area must be defined as a compliance chamber. Well,
8 then it renders claim 9 meaningless.

01:49PM 9 So the doctrine of claim differentiation, which is
10 a guide to understanding claims, the doctrine of claim
11 differentiation says, well, here if you have an excess volume
12 area that comprises a compliance chamber, an excess volume
13 area is not necessarily just a compliance chamber.

01:50PM 14 In fact, that is very true. It also discussed in
15 the patent -- for example, the patent talks about in the
16 specification that the compliance chambers may be configured
17 in a variety of different ways.

01:50PM 18 In addition to containing air to act as a spring,
19 you may have a membrane that could be provided between the
20 liquid and the air or other gas. That membrane would
21 separate the area where the fluid is going to go, separate
22 the gas from the air.

01:51PM 23 Likewise, the space could be filled with a porous
24 foam or other elastomeric material like a compliance ring or
25 something else but an elastomeric material that is solving

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1 the same problem, that being that extra volume area.

2 THE COURT: Where is this found?

3 MR. TAMKIN: This is found at column 12, lines 31
4 through 39, Your Honor. And that's actually on this screen.
01:51PM 5 So if I give you the hard copy, you'll --

6 THE COURT: I have the packet here. I'm trying to
7 follow along. Column 12?

8 MR. TAMKIN: Column 12, lines 31 through 39, I
9 believe.

01:51PM 10 THE COURT: Okay. Please continue.

11 MR. TAMKIN: Okay. Before I move on, I was going
12 to now talk about the actual infringement and the ViVistro
13 product. There is one diagram that is in the briefs that is
14 attorney's eyes only. I don't know if Your Honor is going to
01:52PM 15 require to seal the courtroom or anything before I show --

16 THE COURT: You can trust me. I won't --

17 MR. TAMKIN: Okay. Okay. Let's then continue.

18 This is the ViVistro ADC durability tester, and this
19 is the product that infringes. The drawing on the left is
01:52PM 20 sort of, if you were to look at it, and the drawing on the
21 right, is the version of it that is the schematic, if you
22 will, that was provided by ViVistro.

23 I'm going to walk you through now where all of the
24 elements of the claim are. What happens in this system --
01:52PM 25 and I'm going to use the one on the right because I think

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1 that's a little clearer. What happens in this system is
2 there is a pump and there's fluid that goes in where those
3 arrows are over here. So the pump is going to push fluid in.
4 Then there's a fluid distribution chamber. The fluid
01:53PM 5 distribution chamber is this area here (indicating), which is
6 basically the area that is below the valve.

7 The valve then is right in this area (indicating).
8 There's your valve. The fluid goes through the valve and
9 into the fluid return chamber. Fluid return chamber in the
01:53PM 10 claims is defined as the chamber that is on the other side of
11 the valve, for simple terms. That's your fluid return
12 chamber.

13 Then you have your compliance rings. Your
14 compliance rings, what happens with those rings is those
01:53PM 15 rings are full of gas. When the fluid -- if you can imagine
16 the piston, instead of going straight up, it's sort from the
17 left and then up because of how this works.

18 THE COURT: Are these tubes, are they on the
19 left-hand side --

01:53PM 20 MR. TAMKIN: The tubes are up here. These are the
21 tubes right there (indicating). Those are open -- not open.
22 Those are rings that are filled with a gas. What happens is
23 the fluid gets driven in this system, and the gas inside
24 those rings compresses. That creates the excess volume area.

01:54PM 25 The excess volume area is where the rings are. But

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1 when it is -- when the -- when it's under compression -- it's
2 when the rings compress, that's where the excess volume area
3 is.

01:54PM 4 THE COURT: Where would the gas go? It would have
5 to go --

6 MR. TAMKIN: It compresses. Just like in the other
7 example, it compresses and becomes smaller because gas you
8 can compress, whereas fluid you cannot.

01:54PM 9 So if we -- so what happens in these rings is the
10 gas inside compresses such that it becomes smaller, and the
11 area where -- the space where the air was in those rings is
12 now filled with fluid.

13 So let me do a comparison for you, Your Honor.

01:55PM 14 THE COURT: Completely closed? There's no valves
15 on those tubes?

01:55PM 16 MR. TAMKIN: No. Those are just tubes filled with
17 gas. So what happens is if you imagine the fluid pushing in
18 there, the gas contracts. It becomes smaller because gas can
19 be compressed. Just like -- and there's more pressure. So,
20 for example, it's like if you can imagine a tire. You know,
21 you can fill it with more and more and more gas. There's
22 more and more pressure in there and it contracts to accept
23 the space.

01:55PM 24 If you go -- if we go back, if we go back to the
25 prior, the drawing that we were looking at -- and we

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1 shouldn't necessarily compare.

2 If you can go backwards to Fig. 6. Thank you.

3 So what happens here, Your Honor, the gas that is
4 in this area (indicating), it compresses when the fluid is in
01:56PM 5 that area. Likewise, the gas in those rings does the same
6 thing. And just like as in here where you have the darker
7 blue that is taking up space where the gas was, the same
8 thing happens if we move forward. And let me explain that to
9 you.

01:56PM 10 Let's go back to the drawing if we can. There.

11 So we have the rings. What happens is those rings
12 are going to contract.

13 Let's go to the next slide, and then I can show you
14 how that happens.

01:56PM 15 This is sort of a simplified version of what
16 happens when you're under compression versus not under
17 compression. When you're not in compression, you see the
18 tubes. Those are the three rings there. Those are filled
19 with gas.

01:57PM 20 When it's under compression, what happens is the
21 yellow area is now filled with fluid, and the rings
22 themselves become smaller. So therefore when it's under
23 compression, the volume area is the area that's yellow, the
24 area where the fluid is now occupying that was previously
01:57PM 25 occupied by those rings. And that's the excess volume area

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1 that is claimed in the patent.

2 What happens, if we go to the next slide. Same
3 pictures but I'm putting up the patent next to it now. The
4 claims. You have an excess volume area capable of operating
01:58PM 5 at an accelerated rate. ViVitro's product operates at an
6 accelerated rate, whereas the volume area is in fluid
7 communication with the fluid return chamber.

8 So this is on the back side of the valve, so that's
9 the fluid return chamber, and it provides a volume when it is
01:58PM 10 -- it provides a volume for storing a volume of the test
11 fluid. It's where the test fluid goes when the system is
12 under -- when the test system fluid is under compression.
13 When it's under compression, it fills the space that was
14 created or occupied, and occupied, by the rings.

01:58PM 15 THE COURT: I understand that, counsel.

16 MR. TAMKIN: Okay.

17 THE COURT: One of the exemplars in this used the
18 term release. How is that, the liquid in the yellow there on
19 the right, released then?

01:59PM 20 MR. TAMKIN: What happens is the system becomes not
21 under compression. So the motor, the linear motor that's
22 used in the ViVitro product, pulls back sort of like it pulls
23 down in the Fig. 6 that we talked about. It pulls back.

24 When it pulls back, the fluid -- the air expands.
01:59PM 25 The gas in the compliance rings expands to fill that space.

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1 It's released in that fashion. So now there's less pressure.
2 With that less pressure the compliance rings once again
3 become larger because of less pressure being put on them.

01:59PM 4 So what happens is that gas in those compliance
5 rings just expands. That's the release that is taking place.
6 So it's when it is not in compression, they're full of gas is
7 a certain psi. When it's under compression, that psi would
8 go up. There's more pressure and the gas shrinks.

9 THE COURT: So you're saying the gas is released?

02:00PM 10 MR. TAMKIN: No, the gas isn't released. The fluid
11 is -- the gas is under less pressure when there's less
12 pressure being applied to it. So the fluid, the fluid goes
13 out of the space it's in. So the fluid, when it's under
14 compression, is in the yellow spaces.

02:00PM 15 When it is not under compression, there's no longer
16 the same amount of force being applied; therefore, the gas
17 can expand in those compliance rings and they go back to
18 their original shape.

19 So that is the --

02:00PM 20 THE COURT: Understood.

21 MR. TAMKIN: Okay. Again the patent talks about
22 this very type of a system. If you go to the next slide, the
23 patent talks about -- and we already looked at this,
24 Your Honor, so I don't want to belabor it. The patent talks
02:00PM 25 about that you can configure this extra volume area, extra --

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1 in a variety of ways, including by separating the liquid and
2 the air with a membrane.

02:01PM 3 And that's what's really happening here. If you
4 can imagine an inner tube or something like that, that inner
5 tube is separating the air or gas, whatever is in there -- I
6 don't know -- that gas from the liquid in the system. When
7 the system is driven and that liquid has nowhere to go, it
8 fills -- it compresses the gas so that the gas becomes
9 smaller and creates that -- and you have that area where this
02:01PM 10 all goes.

11 That's -- so ViVitro's argument is that -- two
12 things. It's really -- it's what's called a claim
13 construction argument. The argument is, number one, that an
14 extra volume area has to be -- has to have structure. It has
02:02PM 15 to be an actual chamber like a compliance chamber.

16 Well, that's wrong, Your Honor. The reason that
17 that's wrong is because -- I mean, the simple reason is you
18 can look at claim differentiation. Claim 9 tells you that
19 the extra volume area isn't just a compliance chamber.

02:02PM 20 And it's written that way, too. The extra volume
21 area in claim 1 is written in spatial terms. It's an area.
22 It's a volume for accepting volume. It doesn't have to have
23 a particular shape or structure to it. That's really what
24 ViVitro's argument is.

02:02PM 25 And then they say, well, that area, that structure

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1 is not in fluid communication, which is another requirement.
2 It's not in fluid communication with the return chamber.
3 Well, if you look at this, of course it's in fluid
4 communication. The fluid is moving into that space, that
02:03PM 5 extra space that is created when the gas is compressed, and
6 it's moving out of it. It's in fluid communication. That's
7 not very complicated.

8 Infringement is not where I think that ViVistro
9 spends a lot of its time. It spends a lot of its time in
02:03PM 10 invalidity, and ViVistro doesn't come close, though, to
11 proving invalidity.

12 Before I move on to invalidity, is there any
13 question that I can answer with respect to the infringement
14 issues?

02:03PM 15 I can go through the other claims, but I don't know
16 that that's -- you can read the other materials. There are
17 other claims. All these other claims also are met. There's
18 claim 1. There's claim 2 which talks about having a type of
19 motor, and that motor has to operate in a certain way. It
02:03PM 20 has to be linear. There's other claims as well. But I can
21 move on to invalidity.

22 THE COURT: Well, before you go to that --

23 MR. TAMKIN: Sure.

24 THE COURT: -- what language best encapsulates in
02:04PM 25 your view the notion that the extra volume can be inside the

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1 chamber itself?

2 MR. TAMKIN: Sure.

3 THE COURT: In other words, defendant's product
4 has, as you described it, the space there inside. What in --

02:04PM 5 MR. TAMKIN: Sure.

6 THE COURT: -- plaintiff's patent goes to that?

7 MR. TAMKIN: Well, there's two things. I'll just
8 look at the claims, Your Honor. If you have the patent in
9 front of you, it's the last page of the patent on column 17
10 and 18.

02:04PM

11 In column 17 you have claim 1 which we've been
12 looking at. Claim 1 describes that excess volume area in
13 that in that excess volume area it talks about it has to be
14 -- this is the line 47 in column 17 -- it has to be in fluid
15 communication with the return chamber.

02:05PM

16 So it has to be receiving that fluid and be in
17 communication with the fluid return chamber. Then you get to
18 claim 9, which actually further describes another claim. The
19 claim 9 talks about actually the compliance chamber defining
20 -- where the excess volume area comprises a compliance
21 chamber defining a cavity within the fluid return chamber
22 itself.

02:05PM

23 In other words, when you're getting more in detail,
24 it's actually saying that that compliance chamber is within
25 the fluid return chamber. So the excess volume area may be

02:06PM

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1 in the fluid return chamber; it may not be in the fluid
2 return chamber. But certainly it can be within the fluid
3 return chamber. That's one of the ways that it would work is
4 if you have it in the fluid return chamber.

02:06PM 5 That's sort of similar to that it's in fluid
6 communication with the fluid return chamber in Fig. 6 and in
7 claim 1.

8 So putting all of that together, the excess volume
9 area can be in the fluid return chamber but doesn't have to
02:06PM 10 be. It can be separate and apart. But there's nothing that
11 says it cannot be in the fluid return chamber. In fact, in
12 one instance it can be in the fluid return chamber.

13 THE COURT: I guess -- but then doesn't the patent
14 essentially try to define every conceivable, logical way that
02:07PM 15 a pressure spike can be reduced by --

16 MR. TAMKIN: -- an excess volume area? Yes.
17 That's what a patent does. A patent says I have this idea,
18 and my idea is that I'm going to set up a system that works
19 in a certain way where I have a valve here; I have the
02:07PM 20 distribution chamber here; I have the motor down below. And
21 I push volume through that, and I have a problem. My problem
22 is I'm going to bust my system if I don't have some excess
23 volume area to deal with that pressure.

24 So it defines, it captures --

02:07PM 25 THE COURT: You're saying every conceivable way.

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1 Anything that can be in the future, a hundred years from now,
2 to take care of a pressure spike for this would be covered by
3 your patent?

02:08PM 4 MR. TAMKIN: No, of course not. What -- a patent
5 is limited by the claims. So if you have a fluid
6 distribution chamber and a fluid return chamber and the fluid
7 distribution chamber is in fluid communication with the drive
8 mechanism and the return chamber is in fluid communication
9 with the return conduit, and the conduit is on the side and
02:08PM 10 that's how the fluid flows from top to bottom, if you have
11 all of these elements and you have an excess volume area,
12 then you do infringe.

13 If you don't have that excess volume area or you
14 deal with the pressure spike in a different way, you can
02:08PM 15 design around the patent. But if you have it set up like
16 this and you have all these elements and an excess volume
17 area, that's a problem.

18 We're not trying to deal with every pressure spike.
19 There's lots of other ways you can do it. But if you meet
02:09PM 20 all the elements -- and these elements have sub elements;
21 right, Your Honor?

22 So each one of the claim elements -- there's, like,
23 five or six elements -- has multi parts to it. So you have
24 to have a particular kind of excess volume area. It has to
02:09PM 25 be working at an accelerated rate.

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1 It has to be -- there it is on the screen. It has
2 to be in fluid communication with the fluid return chamber.
3 It has to provide a volume [sic] for storing a volume of test
4 fluid when the fluid is under compression. So it has all
02:09PM 5 these elements, and each one of these has elements.

6 If you meet all the elements, you do have a right
7 to exclude others from doing the same thing. They don't have
8 to do it the exact same way you do, but you claim a certain
9 system. And if you claim the certain system and they meet
02:09PM 10 it, that's what infringement is.

11 If you make a new anything and you describe that
12 and you dedicate that and you get a monopoly on that
13 particular thing from the U.S. federal government, that
14 monopoly lasts a certain amount of time and you have a right,
02:10PM 15 a property right that's in the U.S. Constitution, to exclude
16 others from doing.

17 That's what we have here. We have somebody else
18 who said these guys built a better mousetrap. That better
19 mousetrap knocked me out of the market, knocked me out of the
02:10PM 20 market within five years. From 2015 we became the market
21 leader; BDC did.

22 Thereafter, everybody stopped using the other prior
23 systems that flowed water -- excuse me, that moved the valve
24 through the fluid, is another way to do it, that sloshed
02:10PM 25 water or fluid around in different ways. But BDC came up

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1 with a new way, and it told the whole world what the new way
2 is. Didn't keep it a trade secret, Your Honor. Told the
3 whole world. Put that in a patent application. That patent
4 application was granted after review by the United States
02:11PM 5 Patent & Trademark Office, the USPTO.

6 By dedicating that information to the public and
7 describing that, the result is for a certain amount of time
8 BDC gets to be the only one who operates a system that
9 practices all the elements of the claims -- not everything,
02:11PM 10 not every system that has pressure spikes, not every system
11 on the market.

12 There's other systems out there. That's why BDC
13 doesn't have the whole market, because people do this a
14 different way.

02:11PM 15 THE COURT: All right, counsel. Why don't you move
16 to invalidity, Dynatek.

17 MR. TAMKIN: Okay. Yeah.

18 THE COURT: I want to hear about those.

19 MR. TAMKIN: So, invalidity. First of all I think
02:11PM 20 we need to understand what the burden is. The burden to show
21 invalidity at trial is clear and convincing evidence. Now,
22 you don't have to show by clear and convincing evidence at a
23 preliminary injunction that the patent is invalid, but that
24 informs the test.

02:11PM 25 In other words, as Your Honor knows, we have to

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1 show a patent's infringement as a likelihood of success, not
2 actual success but likelihood of success. I think there's
3 clear actual success, but that's beside the point. In terms
4 of invalidity, they have to show that it's more likely than
02:12PM 5 not that they will be able to show at trial by clear and
6 convincing evidence.

7 I think what's just important to understand, which
8 is it's a hard burden. It's not an easy burden. The Court
9 makes it -- the Federal Circuit, which, this is all governed
02:12PM 10 by Federal Circuit law -- the Federal Circuit indicates that
11 you have to take that into account when you are analyzing the
12 burdens in determining a preliminary injunction.

13 Here ViVistro is looking -- we can go to the next
14 slide.

02:12PM 15 Here ViVistro is making two different arguments.
16 These are all complicated patent concepts again, but it's
17 basically saying either the system is anticipated by the
18 Dynatek system -- and we'll talk about that -- or it's
19 obvious because you can combine Dynatek and this Xi patent or
02:13PM 20 a patent application. That is, you take two and you put them
21 together.

22 Dynatek on anticipation they need to show all the
23 elements. All the elements of the claims are shown in
24 Dynatek, or they need to show for the obviousness the
02:13PM 25 combination that all the elements are in the combination and

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1 it makes sense to combine those. That's what is called a
2 motivation to combine.

02:13PM 3 On top of that, they are supposed to focus -- the
4 Court needs to look at what is called the secondary
5 considerations of nonobviousness. What that means is you
6 look at what's going on in the market, things of that nature.
7 And if you look at those sorts of things, does that show that
8 it would be obvious to combine these two, or was this really
9 something that was new?

02:13PM 10 I think that's going to be easy because if this was
11 something that was already on the market and was obvious, BDC
12 wouldn't have taken over the market. But we'll get there.

02:14PM 13 So let's talk about why ViVistro's argument --
14 ViVistro has the burden here -- fails. One, Dynatek doesn't
15 anticipate the claims because it lacks the claimed excess
16 volume area. It doesn't have the claimed excess volume area.
17 That's very important. It has to meet the -- be the type of
18 excess volume area described.

02:14PM 19 The Xi patent -- and I have no idea how you
20 pronounce Xi, but I'm hopeful. The Xi patent also does not
21 show the claimed excess volume area. And I don't think that
22 they assert that it necessarily does, but they assert you can
23 combine it to kind of make that.

02:14PM 24 Importantly there's no motivation to combine Xi
25 with Dynatek. What you have to show -- and this is

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1 important -- it's because Xi operates one way and Dynatek
2 operates another. Importantly, and I'll show you this in
3 just a second, but the Dynatek system is not under
4 compression. And if it's not under compression, you wouldn't
02:15PM 5 combine it with something that could be under compression.

6 And then the last point is that the secondary
7 considerations that the Federal Circuit has said every Court
8 must consider do not support a finding of obviousness.

9 So let's talk about the Dynatek patent -- or the
02:15PM 10 Dynatek manual is what it really is.

11 There's three separate reasons why Dynatek doesn't
12 anticipate. Number one, it doesn't store a volume of test
13 fluid when the system is under compression. The system is
14 not under compression, and I'll show you -- but what that
02:16PM 15 system really does is it's sort of a constant. It's a
16 three-dimensional seesaw.

17 So what happens in the Dynatek system is when fluid
18 goes up on this side (indicating), it goes into the other
19 side of the system. So it's like a seesaw type of system, so
02:16PM 20 it's a closed system. That seesaw means that there is no --
21 it's never under compression, which is a requirement that
22 I'll show you in the -- well, it's right here in the claims.

23 If you look at the purple part of the claims here,
24 the excess volume area has to be able to do something when
02:16PM 25 the test system fluid is under compression. And that's right

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1 here at the very end. It has to do something when the test
2 system is under compression.

02:16PM 3 The Dynatek system, there's an identified area or
4 what's called the capacitance tank. That tank is not
5 actually in fluid communication with the return chamber, and
6 that's a requirement. It says right here in pink, I guess,
7 in fluid communication with the return chamber. It has to be
8 that. If it's not that, it doesn't anticipate.

02:17PM 9 THE COURT: Is your argument because the tube that
10 connects it is five feet long and very thin? Why is it not
11 in fluid communication?

12 MR. TAMKIN: Because it's in fluid communication
13 with a different chamber. I'll show you that on the drawings
14 that ViVitro submitted.

02:17PM 15 And then the last issue is it's not capable of
16 operating at the accelerated pulse rate, and that is a little
17 bit more the structure of it. It doesn't allow it to do
18 that. What it says is it's not doing that.

02:17PM 19 The Dynatek system tells you why they have that
20 capacitance tank and what it's doing. We'll get there.

02:18PM 21 Let's take a look at the system itself first of
22 all. If we go to the next slide, this is what -- this is
23 what is happening. If I ever give you the hard copy of this,
24 Your Honor, it's not going to move like that, but that is --
25 it's cited in one of those cites in the declaration.

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1 The Dynatek system, the valve -- it says where the
2 valve block on the right here, that's about where the valve
3 is. What happens is you have this -- it's a
4 three-dimensional seesaw, so you have something moving up and
02:18PM 5 down, but it's really a three-dimensional because there's six
6 of these. It's a little bit complicated.

7 What happens is there is fluid in that area, and
8 that fluid is moving from one area to the other area, back
9 and forth. There's no -- when one side of the seesaw -- if
02:18PM 10 you imagine a seesaw at the bottom in a tank and the seesaw
11 is the bottom of the tank. When the seesaw goes up on one
12 side, it goes and down on the other. So the fluid doesn't
13 create excess pressure. It just moves.

14 That's what's happening in the Dynatek. It's just
02:19PM 15 a different design. But what this design did -- uniquely
16 perhaps -- but what this design did is it avoided the problem
17 of these pressure spikes in some respects because it doesn't
18 use -- it doesn't create the same pressure.

19 Now, it probably had different types of pressure
02:19PM 20 spikes, but it wasn't -- it's not operating under the
21 principle that the new product was operating under.

22 Another way to think about it is maybe a bowl
23 sloshing around water where it's just at different heights at
24 different times but it's sort of flipped upside down. It's a
02:19PM 25 swashplate design. There's no drive. There's no piston that

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1 is pushing fluid in any particular -- through a particular
2 valve.

3 In fact, if we go to the next -- well, yeah. Thank
4 you. If we go to the next one, if you look at the bottom
02:20PM 5 here, I think this is from ViVitro's drawing. It explains at
6 some level -- I don't know if we fully agree with it, but it
7 explains at some level what's happening, which is the fluid
8 goes to the top of the device and then it goes down through
9 the valves.

02:20PM 10 So it takes -- the Fig. 6 that I talked about
11 earlier, it kind of flips it in some respects on its head,
12 whereas in that one the fluid in both that one and in the
13 ViVitro product, the fluid is going up through the valve. In
14 this case it's going down through the valve. It's actually
02:20PM 15 being sucked or pulled down through the valve when the seesaw
16 goes down, if you will.

17 So what that means is, if we think about the
18 patent, the patent defines what's a distribution chamber and
19 a return chamber. So the distribution chamber in the ViVitro
02:20PM 20 product and in the Fig. 6 that we looked at in the patent,
21 that distribution chamber was on the bottom, on the bottom
22 side of the valve, because you're going up through the valve.
23 So when the valve is open, it's on the down side of the
24 valve.

02:21PM 25 Here the distribution chamber is on the top. The

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1 valve is going open, and the return chamber is on the bottom.
2 So if you look at -- these annotations are from ViVitro's
3 drawing. So ViVitro notes that the return chamber is on the
4 bottom. The distribution chamber is on the top. So the tube
02:21PM 5 that Your Honor was referring to is over here (indicating).

6 That tube is connected to the distribution chamber,
7 fluidly connected to the distribution chamber and not fluidly
8 connected to the return chamber. What ViVitro says is, well,
9 it's connected to the system. But that's not what the patent
02:21PM 10 talks about.

11 The patent talks about -- I don't need to go back
12 to it. I think I've shown it to you, like, six times. The
13 patent talks about that the excess volume area needs to be in
14 fluid communication with the return chamber, not with the
02:22PM 15 distribution chamber. And here it is clearly in fluid
16 communication with the distribution chamber.

17 So you don't have something in fluid communication
18 with the return chamber, and you don't have something under
19 compression. The easiest way to look at that -- and I can --
02:22PM 20 if you go back one slide and I clear this off.

21 If you go back one slide -- forward. Thank you.

22 This is just from the expert declaration. Both
23 sides have experts who made declarations and explain how
24 things work. Here in the swashplate design -- that's why I
02:22PM 25 went through that whole explanation with the seesaw. It's a

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1 swashplate design because it's three-dimensional. It spins
2 around. But you don't have any drive through -- you're not
3 -- there's nothing under compression. You're simply sloshing
4 the water or fluid back and forth, and that's creating the
5 movement and opening up the valves and closing the valves.
6 There's no drive mechanism, so there's nothing under
7 compression.

8 If we go to the next slide again. Sorry. The
9 previous one. One more.

10 If you look again at the purple there, it has to be
11 under compression. So Dynatek is just not under compression.
12 That's how they were able to make a system that worked.

13 We know it's not under compression, and we know
14 there's not an excess volume area because the other thing the
15 excess volume area has to do is it has to operate at an
16 accelerated rate.

17 The Dynatek system tells us not that this is --
18 this capacitance tank that's connected with this little thin
19 tube is handling this pressure because there's no pressure.
20 It tells us why it exists.

21 If you can go back one slide.

22 THE COURT: Wait. I'm sorry. Doesn't there have
23 to be some compression for the fluid to move through the
24 valve? It's -- it's just a different portion of the volume
25 that's under compression.

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1 MR. TAMKIN: There -- certainly there's internal
2 dynamics, yes, working, but the whole system is not under any
3 compression that is -- that the excess volume area has to
4 take. So in other words you're not trying to solve a problem
02:24PM 5 where if you don't have an excess volume area, your system is
6 going to explode due to the pressure, because you're
7 accounting for the pressure in a different way.

8 Here you're accounting for the -- in Dynatek you're
9 accounting for the pressure because as this side could be
02:24PM 10 creating pressure, this side is going down. So you're going
11 back and forth, which is moving the fluid through -- moving
12 the fluid around.

13 THE COURT: Right. It's -- it's creating a
14 pressure differential.

02:25PM 15 MR. TAMKIN: That's a good way to say it. It's
16 creating a pressure differential, but it is not -- a system
17 is not under compression like the systems where you're
18 pushing and you're taking up that space with the drive
19 mechanism.

02:25PM 20 THE COURT: All right.

21 MR. TAMKIN: So -- and that's a very good
22 discussion to understand that.

23 So if you look at that little -- if you go to the
24 next slide. So there's the capacitance tank. This
02:25PM 25 capacitance tank is connected by that Tygon tube. This is

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1 not obviously to scale because that's a five-foot-long tube.
2 I don't know -- well, it's a five-foot-long tube that's about
3 an eighth inch in diameter. That is not -- Dynatek tells us
4 why that exists. That exists to buffer small variations of
02:26PM 5 systemic pressure which arise from transient small leakage
6 and thermal effects.

7 In other words, if we look at the next slide --
8 this is Dynatek page 15 -- they tell us why they have this.
9 They have this to buffer small variations in systemic
02:26PM 10 pressure which arise from small leakage.

11 So in other words, if there's a leak and some of
12 the fluid of the system goes out, the fluid from the other --
13 from the capacitance tank can go in. Likewise, if there's
14 thermal issues and it gets hot and the fluid expands because
02:26PM 15 of the heat of operating for six months at a time and the
16 fluid expands, the fluid can rise and go into the capacitance
17 tank. That's what Dynatek tells us the capacitance tank is
18 doing.

19 It is not a capacitance tank that is dealing with
02:27PM 20 pressures that are caused by driving, putting the system
21 under compression.

22 Again, as Your Honor already raised, the excess
23 volume area is not going to -- that little thin tube is not
24 going to have something -- if you imagine 800 revolutions per
02:27PM 25 minute, that's what we're doing. It's 800 beats per minute

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1 that that pressure is going to go travel all the way through
2 that five-foot-long tube and handle anything.

3 Importantly Dynatek also tries not to create an
4 excess volume area with gas -- and we'll get here in a
02:27PM 5 second. Dynatek talks about the fact that you want to remove
6 all bubbles. We want to remove all the gas from the system,
7 and that's very important in Dynatek.

8 Dynatek is not trying to create that excess volume
9 area and is trying to remove the gas. So that's why Dynatek
02:28PM 10 just doesn't come close to this. Again there's -- nothing is
11 under -- the system is not under compression. It's not able
12 to operate at an accelerated rate. And importantly it's not
13 connected, fluidly connected to the right chamber. So sort
14 of the easy one, if you will, is that.

02:28PM 15 So what does ViVitro then say? Well, if Dynatek
16 doesn't do it, let's put two things together. Let's put
17 Dynatek together with Xi. It happens in a lot of patent
18 cases that people try to put things together, but you can't
19 just find one example of something that's out there that has
02:28PM 20 one element that I have and something else that has another
21 element, put it together, and now I got both things. There
22 has to be a reason to combine the two. You have to look to
23 combine the two.

24 Now, I don't think that Xi shows what is missing,
02:29PM 25 but in any event there has to be a reason to combine. That's

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1 very important. And you can't just look at hindsight and say
2 I got two things; I'm gonna put them together.

3 So let's look at the next slide so we can see what
4 we're putting together. On the one hand we have --

02:29PM

5 THE COURT: Let me stop you. Just in terms of
6 logistics so everyone is clear, I am going to -- this is all
7 more complicated than when I originally thought about time
8 estimates.

02:29PM

9 So I'm going to let you go until 3:00 o'clock.
10 Then we're going to take a 15-minute break. And I'll give an
11 equal amount of time for the defendants so everyone will have
12 equal time. But we will need to take a break, so just be
13 mindful you have about another half an hour.

02:29PM

14 MR. TAMKIN: Thank you very much. I really
15 appreciate knowing that information, because I will hopefully
16 tailor the argument accordingly and maybe not even go the
17 full half an hour -- although it's always dangerous when you
18 give a lawyer a half an hour; isn't it?

02:30PM

19 The slide in front of you, Your Honor, has both the
20 Dynatek on the left and the Xi on the right. We've already
21 talked about the Dynatek. It is the swashplate design. It
22 is flowing the fluid up and down so that there is no overall
23 compression on the system.

02:30PM

24 The Xi is sort of one of the older systems, and
25 what it is doing is it is moving a valve through a system.

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1 Let me show you what -- here is the valve. What happens is
2 this is a device that moves that valve up and down. It goes
3 down and it goes up. So what happens is when it goes down,
4 the valve is closed. That valve pushes fluid. Then when it
02:30PM 5 goes up, it opens so that fluid can flow through it. That's
6 how that valve moves up and down through the system.

7 So what you have is -- you don't really have
8 something that is very similar because what you have is the
9 pressure source itself in this case is the valve. The valve
02:31PM 10 is actually, when it's closed, is moving the fluid.

11 So if you want to try to map it to the claims, you
12 would say that the distribution chamber is connected, fluidly
13 connected to the pressure source. Well, if the pressure
14 source is what I've circled, then this whole area is the
02:31PM 15 distribution chamber, I guess. It's not a good map. It
16 doesn't really fit to it because it's just such a different
17 system.

18 In any event you would say that this is the fluid
19 distribution chamber. This whole area over here is the fluid
02:32PM 20 distribution chamber. The fluid return chamber would maybe
21 be on the back side of the valve.

22 THE COURT: Just quickly explain this because I
23 could not make heads or tails of this.

24 MR. TAMKIN: I -- it took forever, Your Honor. I
02:32PM 25 understand.

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1 THE COURT: So the air chamber would be -- just to
2 map it would be what is -- would be considered or argued to
3 be -- and the Court is not making any findings now -- the
4 excess volume area. And the fluid, what, is going down --

02:32PM 5 MR. TAMKIN: So the fluid goes down and then to the
6 left where this arrow is here through the system kind of this
7 way (indicating).

8 THE COURT: What are all those plungers there?

9 MR. TAMKIN: This -- the plunger -- let me clear
02:32PM 10 this. We've made a mess of it. The plunger over here, this
11 plunger is connected to the valve. So they put the valve
12 right on the plunger so that when the valve is closed, it can
13 push fluid --

14 THE COURT: Yeah, I understand that, that plunger.
02:33PM 15 I mean the ones on 13 and 14. What's going on there?

16 MR. TAMKIN: Honestly I'm now not a hundred percent
17 sure, Your Honor, but those are other mechanisms that can
18 move the fluid and allow fluid to go and not go.

19 THE COURT: The direction of the fluid is in
02:33PM 20 circular motion from the valve through 11, 13, 17 --

21 MR. TAMKIN: Correct.

22 THE COURT: -- up to the top and then back down to
23 the other side of the valve?

24 MR. TAMKIN: Yes, counterclockwise.

02:33PM 25 THE COURT: Okay.

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1 MR. TAMKIN: You've got that right. And then, yes,
2 this air chamber is kind of connected to the fluid
3 distribution chamber if you're trying to map it to the
4 patent --

02:33PM

5 THE COURT: Do they describe why they put that air
6 chamber in?

7 MR. TAMKIN: No, I don't believe so, Your Honor.
8 Because this is an open system, there's some -- open to the
9 air, it's not clear how much compliance that would be
10 creating in any event.

02:34PM

11 The point of all of this is not that this system
12 maps to the patent. It's really that if you combine this
13 with Dynatek, then you're kind of getting close. That's what
14 I think the argument is, but that's not really -- it doesn't
15 make any sense in this case.

02:34PM

16 First of all you still don't have an air chamber
17 that is in that area -- we'll call it the air chamber. The
18 air chamber is not connected to the fluid return chamber
19 because there is no real fluid return chamber on here.

02:34PM

20 Arguably it's connected to the distribution chamber because
21 distribution is what's connected to the pressure source.

22 But most importantly, Your Honor, when you're
23 trying to do an obviousness analysis, you have to have a
24 reason to combine these two. If you look at the Dynatek
25 product on the left or the Dynatek drawing on the left, you

02:35PM

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1 say why would I put a product with an air chamber -- let's
2 assume it absorbs some pressure. I don't need to absorb any
3 pressure in the Dynatek system. So you wouldn't look to
4 combine these two different systems, one that has an air
02:35PM 5 chamber and one that tells you no air at all, get the air out
6 of the chamber. Remove the air.

7 Dynatek -- and we'll get here and I'll show you a
8 bunch of examples. Dynatek says remove all the air. You
9 don't want any air in our system. And, as Your Honor
02:35PM 10 understood, there's no excess pressure that you have to deal
11 with. So you wouldn't try to create an area that can handle
12 excess pressure and connect it to the Dynatek system.

13 That's really important because in any obviousness
14 analysis, you have to show what's called a motivation to
02:36PM 15 combine, and there's no reason you put these two together.
16 And that is quintessential for an obviousness analysis.

17 So if you go to -- in Dynatek and Xi they operate
18 in different ways. That's very clear. One is pulling the
19 fluid through and one is moving the actual valve. Dynatek
02:36PM 20 isn't under compression the way you would need an excess
21 volume area, if you will. So you don't need that, so you
22 wouldn't combine the two.

23 What you're never supposed to do in an obviousness
24 analysis is just hodgepodge together a bunch of features.
02:37PM 25 There has to be a reason that one would want to put that

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1 excess, that air chamber onto the Dynatek system. All
2 they're doing is they're grabbing this system out and
3 grabbing this system out and then say, hey, you can put them
4 together. But that's not an obviousness analysis.

02:37PM 5 Finally Dynatek teaches away from the system, and I
6 think that's very important.

7 THE COURT: What does that mean? It seems to be --
8 it was in your brief as well. What exactly is teaching away?

9 MR. TAMKIN: So a patent will tell you or a
02:37PM 10 document will tell you whether or not you should do something
11 or you shouldn't do something. One of the best examples of
12 something that tells you there is no motivation to combine is
13 if one of the documents tells you not to do something.

14 So what teaches away means is that the manual
02:38PM 15 itself tells you don't combine; don't do this. That's what
16 the Dynatek system does. If you look at -- I have a whole
17 bunch of examples -- slide 25, here's a quote from the case:
18 Where reference teaches away from the claimed invention, the
19 patents are more likely to be nonobvious.

02:38PM 20 So here it says -- and all the cites are down below
21 there -- bubble removal is very important. It tells you
22 remove all the air from the system. If you had air in the
23 system, Your Honor, that air could compress, right? And that
24 air would then contract and it could serve as not the claimed
02:38PM 25 excess volume area, but it could be an air chamber for sure.

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1 And it might absorb some pressure if there was any pressure.

2 It tells you we don't want any air in the system.

3 There are 15 different steps -- maybe I'm wrong and maybe

4 it's 12 different steps -- in the manual. If you go through

02:39PM 5 that whole manual that say take out the air, it's painstaking

6 to set that product up because you have to do so many things

7 to remove all the air.

8 So what I'm saying is the last thing you would do

9 is if the manual tells you remove air, remove air, remove

02:39PM 10 air, the last thing you would do is combine it with something

11 that has an air chamber. And that's what ViVitro is trying

12 to argue: Combine it with something with an air chamber.

13 That's just not logical. It doesn't meet the

14 motivation to combine tests, and it shows it's not obvious.

02:39PM 15 I'm going to very, very briefly, especially in

16 light of the time, just say one of the things that ViVitro

17 also needs to do is show that it meets all of the claims,

18 that it validates all of the claims that are at issue here.

19 At issue is 1 through 4, 8, 9, and maybe 12 and 13. Did I

02:40PM 20 get that right?

21 I don't care to go through all of them, but if you

22 look at claim 4, for example, it says you have to have a

23 linear motor. Dynatek doesn't have a linear motor. As

24 Your Honor pointed out, those plungers in Xi, that is a

02:40PM 25 linear motor. But if you think about that spinning plate

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1 that I showed you in that fancy GIF or whatever that is, I
2 don't know how you convert that into a linear motor. Do you
3 have five or six different linear motors going up and down?

4 That's a rotating motor. Why would you combine that?

02:40PM 5 Likewise, where is -- in claim 8 where is the springing force
6 that is discussed? There's nothing there. Then claim 9,
7 there's nothing in the fluid return chamber.

8 Again, even if you were to sort of fit an air
9 chamber onto Dynatek, there's nothing on the -- there's
02:41PM 10 nothing connected -- in Dynatek would be the fluid return
11 chamber, which is sort of the bottom of the drawing.

12 THE COURT: Why are you spending so much time on
13 the argument that combining them is somehow more powerful?
14 Why isn't a straight analogy to Xi more analogous?

02:41PM 15 MR. TAMKIN: I'm sorry? Could you just say that
16 one more time?

17 THE COURT: You're spending a lot of time with the
18 discussion about combining both Dynatek and Xi, but why isn't
19 Xi on its own --

02:41PM 20 MR. TAMKIN: That's not their argument. That's
21 why. Xi is very different. It moves the valve. It doesn't
22 mimic the system at all. There's no fluid driving through
23 the valve, which is sort of the principle of the whole thing,
24 that the fluid is driving through the valve. There's a
02:42PM 25 return chamber, a distribution chamber. They don't map it to

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1 Xi. Their expert doesn't map it to Xi.

2 Xi has that air chamber but it's in the wrong spot.
3 But you don't have any -- you don't have the same chambers
4 even set up. That's not where they're going, so that's not
02:42PM 5 where I'm going.

6 The last thing I'll say on invalidity, it's very
7 important, is you always have to assess what's called the
8 secondary considerations of nonobviousness. Those
9 considerations -- if I'm on the right slide, I'm going to get
02:42PM 10 to the third bullet point -- are things like unexpected
11 results, if other people copy you, commercial success, praise
12 by others, long-failed need, failures by others.

13 You look at those factors, and if those factors --
14 if, for example, the product is very successful or others
02:43PM 15 copied it, that shows it wasn't an obvious -- there's no
16 obviousness to it.

17 Here I'm just going to choose a couple -- if we go
18 to the next slide. Thanks -- unexpected success. Here's a
19 product that you wouldn't expect to have success. You
02:43PM 20 wouldn't expect to have success by adding air or adding a
21 chamber with air or adding compliance rings to the Dynatek
22 system because it tells you to de-bubble.

23 Likewise commercial success. Everybody admits --
24 and this is where we're going next on irreparable harm.
02:43PM 25 Everybody admits that this product was extraordinarily

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1 successful. It, you know, became the market leader in a very
2 short amount of time, controls a very large portion of the
3 market. That's really undisputed.

02:43PM 4 ViVistro's president himself admits BDC achieves
5 substantial commercial success with the product. That's a
6 good indication that it's not obvious. And that's what the
7 Federal Circuit has said. These are called the Graham
8 factors as well -- industry praise, others copying. We've
9 now seen others copying because it's been so successful.

02:44PM 10 So it's not obvious. ViVistro is not able to show
11 that it's obvious, especially given the secondary
12 considerations and the burdens. ViVistro has to show
13 substantial questions in light -- and especially in light of
14 the clear and convincing burden that they will face at trial.

02:44PM 15 Let me move to irreparable harm in the 15 minutes I
16 have left.

17 When I started, Your Honor, this is one of those
18 cases where you really have a significant irreparable harm
19 ongoing. There are five areas I'll cover. One is
02:44PM 20 reputational harm. Reputational harm is considered
21 irreparable harm.

22 It's very clear when we look at the documents that
23 there is reputational harm going on here, and ViVistro admits
24 the importance of reputation.

02:45PM 25 Loss of market share. Loss of market share is hard

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1 to show, but loss of market share in a niche market like
2 this, one thing we haven't talked about, there's only four
3 players really in this market. And in a very small market
4 when we're the dominant player in the market, when BDC is the
02:45PM 5 dominant player in the market, that is going to create loss
6 of market share, which has been found to be irreparable harm.

7 Likewise, all these companies in this space, it's
8 important to be innovators. BDC, this is its most successful
9 product. It brings the most revenue in for the company. It
02:45PM 10 uses this revenue to come up with new products.

11 If Mr. Weinberg were to testify at some point, he
12 would explain that they're in the process of using the money
13 that they earned to develop a new product that is going to be
14 launched hopefully in the coming year. That is the lifeblood
02:45PM 15 of the company, coming up with new products. This one drives
16 it. When you impact this one, you impact R&D, and that is
17 irreparable harm.

18 Additionally, it's not -- these are -- one of the
19 things that both these companies do is they sell testing
02:46PM 20 equipment and they actually do testing. There are related
21 products and services associated with this product. When you
22 have related products and services, you can't measure the
23 harm associated with infringement in that context when you
24 lose a sale and you lose related services.

02:46PM 25 And then finally, ViVistro's reputation. ViVistro is

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1 an extremely competent and well-known market player. They
2 were the dominant players in this market back in 2008 and
3 earlier, and ViVitro is well known in the cardiac device
4 testing industry, and it's a niche in their specialty.

02:46PM 5 They're getting back into the space. And knocking off the
6 patent, knocking off the product, knocking off the technology
7 would be devastating to BDC, and there's case law that we'll
8 go through that's very clear that that was in fact the case.

9 I'm going to run through these quickly, Your Honor.
02:47PM 10 On the reputational harm side -- oh, one of the things that
11 ViVitro has raised is, well, there's no causal nexus.
12 There's no proof that this is going to cause these damages.

13 Well, first of all, without the excess volume area,
14 the products don't work. You can't drive the fluid into this
02:47PM 15 system without that excess volume area that's being provided
16 by the compliance rings.

17 So all of the products certainly have -- the sale
18 of the products is linked directly to the patented invention.
19 But in any event, setting that aside, reputation. It's very
02:47PM 20 clear under Federal Circuit law -- and that's the Douglas
21 Dynamics case that's cited on the slide there -- it's very
22 clear that you don't need to prove a causal nexus when you
23 have reputational harm, and reputational harm is at issue.

24 In that case Douglas Dynamics was the dominant
02:48PM 25 player in a certain type of snowplow industry at the time,

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1 and this Buyers was knocking off the snowplow. The Court
2 found there was reputational injury that didn't need a causal
3 nexus. And because of the patent infringement, because of
4 the damage to Douglas Dynamics' reputation in the snowplow
02:48PM 5 industry, even though it was the market leader, that
6 reputation for having the best products and the best
7 invention, I guess, was enough to find irreparable harm.

8 Here there is very little question that reputation
9 is key. If you look at the next slide, on the left is what
02:48PM 10 ViVistro's president says in his affidavit -- or his
11 declaration, excuse me. ViVistro's reputation for reliability
12 and innovation is essential to its customer relationships.
13 If ViVistro is not able to sell this product, it will have
14 long-lasting negative effects on ViVistro's entire business.

02:49PM 15 Well, if it's going to have long-lasting negative
16 effects on ViVistro's business if it can't get into a new
17 product, imagine, if ViVistro comes out with a product, what
18 that's going to do to BDC's reputation as the market leader
19 and innovator with all of its patents. Reputation is
02:49PM 20 important in this business.

21 And as ViVistro's president points out, that the
22 negative effect associated with this reputational harm in
23 this small industry -- there's only four players -- is
24 difficult if not impossible to measure. It's irreparable
02:49PM 25 harm.

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1 And certainly BDC's chief technical officer,
2 Mr. Weinberg, says the same thing. This is a small market,
3 and you have incumbency effects. These products are
4 purchased for a long period of time. So once you're out,
02:50PM 5 you're out. So it's very important to have a reputation.

6 You know, these are also regulated products, and
7 it's important that you have a good reputation and that
8 you're well known in the industry because you're selling to
9 people who need to support that to the regulatory authorities
02:50PM 10 who make sure these are tested. I think they're FDA
11 approved. I may be wrong on that. FDA? Yeah, FDA.

12 I'm not going to go through the cases on that, but
13 reputation is huge and that's what's going to suffer in this
14 case.

02:50PM 15 Additionally, loss of market share. It's
16 undisputed that BDC is the market leader and will lose market
17 share. There's case after case that we cite in the brief
18 that talks about loss of market share in a very small player
19 market.

02:50PM 20 This isn't a situation where there's a hundred
21 other companies that are making this. So if one, you know,
22 gets out there, it's not going to impact BDC. The cases that
23 are cited in the brief talk about that, and I'll go through a
24 case in just a second as I'm trying to wind up.

02:51PM 25 When it's a small market and there's few purchases

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1 every year, what we're talking about is a few million dollars
2 of purchases every year in this market. These are -- I think
3 the documents say that BDC sells maybe 40 to 50 of these a
4 year. So it's not like they're selling dozens and hundreds
02:51PM 5 of thousands of products. Individual products matter, so
6 breaking in matters.

7 The way these products work is if you get in,
8 you're going to sell multiple products. So, for example,
9 what happens is -- and I think this is in Mr. Weinberg's
02:51PM 10 declaration. What happens is you get in for a pilot project,
11 and they try the product with one device.

12 If that works, they have to buy multiple devices,
13 multiple testers, so they can have the same test equipment on
14 all of their valves. You don't want to have a ViVitro one, a
02:52PM 15 Dynatek one, and a BDC one. You need to have one so it's
16 consistent across all your valves.

17 So you get in the door and you're going to sort of
18 knock out the competitor, and it's going to sort of be across
19 all the lines. These are major, major companies who do this.
02:52PM 20 So there's little question that there will be a loss of
21 market share.

22 You know, if you look at the Metalcraft of Mayville
23 versus Toro, 848 F.3d 1358, that case was about riding
24 mowers. There were only few purchases of these big giant
02:52PM 25 riding mowers, and the owner testified that you can't

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1 calculate the loss of my market share if somebody comes in
2 and knocks us off.

3 The Federal Circuit affirmed that injunction even
4 though in that case there were other infringers on the
02:53PM 5 market, because this company Toro, Toro was an
6 extraordinarily well-known company. It was the market leader
7 in a whole variety of farming equipment.

8 This one little piece of equipment, though,
9 Metalcraft of Mayville had the patent on. So if Toro came in
02:53PM 10 with their reputation and knocked them off, the Federal
11 Circuit agreed that would cause loss of market share.

12 Again, this patent allows the BDC product to work,
13 and it allows the ViVitro product to work, that having that
14 excess volume area is essential. So infringing this patent
02:54PM 15 is going to cause the sales of a competitive product.

16 I want to talk a little bit about R&D. I had
17 mentioned that a moment ago, that R&D is very important in
18 this industry, as Your Honor can appreciate. This is the
19 medical device industry. Those medical device companies
02:54PM 20 pride themselves on their technology, their innovation.

21 They want their suppliers -- in this case the
22 companies who sell them products and services -- to be
23 innovators. It's very important for BDC to spend money and
24 have money to spend on R&D, and in this case the R&D will be
02:54PM 25 impacted obviously by the loss of sales and loss of market

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1 share.

2 The Federal Circuit has found that when R&D is
3 impacted, that is an irreparable harm.

4 In terms of the related products, I mentioned that
02:54PM 5 briefly. There's products and services here. Both companies
6 sell other products. When you have losses of other products
7 and services, that is irreparable harm, too.

8 And it's important that -- the case law makes it
9 clear. Even if you can calculate a particular lost profit on
02:55PM 10 a product, if you know the product price and you know the
11 profit margin, you can calculate that, that doesn't mean that
12 when you have all of these related products and services and
13 you lose customers, that that defeats irreparable harm.

14 The case law is important on that. It doesn't
02:55PM 15 defeat irreparable harm just because we know the price that
16 BDC sells its products at.

17 And then it's important to understand ViVistro's
18 position in the market. ViVistro is a huge, huge competitor,
19 and that matters. ViVistro is known in the industry for what
02:55PM 20 it does, and it's a small industry. ViVistro is estimating
21 that its profits would be nearly a million dollars.

22 We're talking about a couple-million-dollar
23 industry. ViVistro knows what it's doing. If ViVistro, the
24 biggest competitor out there for a company like BDC, is
02:56PM 25 allowed to infringe, it will dramatically impact BDC's

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1 business in ways that we can't calculate.

2 Now, ViVitro has said, well, but there was another
3 competitor out there who BDC licensed to, and as a result
4 that defeats irreparable harm. The case law is abundantly
02:56PM 5 clear that that is not the case.

6 I cite Your Honor to the Acumed versus Stryker
7 case. In that case Acumed was selling an orthopedic implant,
8 and Stryker went to knock it off. Stryker was by far the
9 most well-known competitor in the orthopedic implant business
02:57PM 10 and had issued multiple licenses to third parties.

11 The Federal Circuit upheld the finding of
12 irreparable harm because you don't look at whether or not you
13 can monetize it. You look at what the impact is of the
14 infringer.

02:57PM 15 When you look at the impact of the other infringers
16 compared to Stryker, an injunction was necessary. Those
17 other infringers weren't causing a problem. Stryker, who was
18 the dominant player in the orthopedic implant industry -- I
19 think it's knees, but in the orthopedic implant industry --
02:57PM 20 was going to devastate Acumed's business.

21 Accordingly, the Federal Circuit affirmed that in
22 that situation you look at how that licensee and how that
23 potential infringer relate to each other, and you can
24 absolutely, absolutely find irreparable harm even in the face
02:58PM 25 of licensing, because otherwise, one license means you can't

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1 exclude anybody else.

2 Here there was a license to a company called TA
3 Industries.

4 THE COURT: That was as a result of a settlement --

02:58PM

5 MR. TAMKIN: It was. It was. And TA Industries
6 had a knockoff product or alleged knockoff product, and there
7 was a settlement. But TA Industries is not really in the
8 cardiac space. It's not a player that offers testing and
9 services -- and all of this is in Mr. Weinberg's

02:58PM

10 declaration -- is not a product that offers services, is not
11 somebody who had the dominant role in the industry that was
12 knocked out by BDC. So that does not in any way impact the
13 irreparable harm finding.

14 In the moments that I have left, I want to talk
02:58PM 15 about two different things. One is a case that I want to
16 point Your Honor to, which is the Trebro Manufacturing versus
17 Firefly Equipment case. This is a Federal Circuit case that
18 is very similar to this one.

19 In that case there was -- it's about a sod
02:59PM 20 harvester and a patent on a sod harvester. It's right there.
21 Thank you -- the bottom case. In that sod harvester, the
22 only testimony was from the principals of each of the two
23 companies that were involved.

24 In this case we're not having testimony, but we do
02:59PM 25 have declarations by both. And the patentholder testimony

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1 was provided by Mr. Tvetene, and he indicated that the market
2 was very small. There are only three players in the market,
3 very similar to this one where there are maybe four players
4 in the market. There were only eight of these products sold
5 in a year, and they sold for about \$200,000 each. So we're
6 talking similarly a few million dollars a year worth of
7 products.

8 Like in this situation, once a farmer bought --
9 this is the testimony of the owner and patentholder. Once
10 the farmer buys a sod harvester, the farmer would not need to
11 replace it for years. Just like in this case, you have the
12 incumbency effects. In that case --

13 THE COURT: That's okay, counsel. We can finish
14 reading it. I think you've made your point on that case.
15 Please wrap it up. We need to take a break.

16 MR. TAMKIN: I will. So I will say in that case
17 the Federal Circuit reversed the denial of a preliminary
18 injunction and found that there was irreparable harm in that
19 kind of a context.

20 Last three points, Your Honor. Number one, the
21 balance of the harms. I don't think I really need to address
22 the balance of the harms. On the one hand -- well, actually
23 I do. On the one hand you have BDC who has a product, whose
24 reputation for innovation, whose sales, whose market share
25 will be impacted.

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03:01PM 1 On the other hand you have ViVistro. ViVistro has no
2 product and has been existing apparently fine. So we're
3 saying: Are you going to impact the sales of a product or a
4 company that has never sold its products? I don't think the
5 balance of the harms even comes close here.

03:01PM 6 Likewise on the public harm. ViVistro makes an
7 argument that the public will be harmed, but there is no
8 evidence whatsoever that the public is not going to get a
9 sufficient number of valves, that there aren't enough valve
10 testers out there that you can't buy from BDC or any of the
11 other companies who make valve products. There's no public
12 interest in this case. The public has an interest in
13 preserving patents.

03:01PM 14 Lastly, I want to focus on the bond issue.
15 Your Honor, ViVistro argues that the bond needs to be very
16 high because it invested in a lot of technology and it's done
17 a lot of marketing. That is not something that we are trying
18 to take away from ViVistro. ViVistro can sell its products in
19 foreign countries.

03:02PM 20 We're talking about a U.S. patent. All that money
21 that ViVistro invested, if in fact it invested that, that is
22 money -- because this is a worldwide market. We are only
23 here in this court, in this United States District Court, to
24 stop ViVistro from infringing in the United States.

03:02PM 25 So the bond in this case should be minimal. This

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1 is a situation where ViVitro has known for over a year -- and
2 that's all in the briefs -- over a year of what's going on,
3 that it was infringing. It was accused. If ViVitro spent a
4 whole bunch of money and didn't design in a noninfringing
03:02PM 5 way, ViVitro can't use that to say, well, now I'm going to be
6 harmed, when ViVitro did that harm, caused that harm to
7 itself.

8 So as a result, that can't be a basis to increase
9 the bond to something extraordinary. The bond in this case
03:02PM 10 should be very low.

11 For the reasons I've said subject to anything,
12 other questions that Your Honor has, I urge the Court to
13 enter a preliminary injunction. I think we've met all of the
14 tests, and ViVitro is unable to show any invalidity. And as
03:03PM 15 a result, given the urgency and the situation here of
16 irreparable harm, an injunction is necessary and warranted.

17 Thank you, Your Honor.

18 THE COURT: Thank you, counsel.

19 Let's take our break now and let's come back at
03:03PM 20 3:20. Then I'll give ample time for ViVitro's counsel to
21 make his argument.

22 We're in recess.

23 (Recess taken from 3:03 p.m. until 3:20 p.m.)

24 THE COURT: So let's resume and hear from, is it,
03:20PM 25 Mr. Thomas?

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1 MR. THOMAS: Mr. Thomas. Yes, Your Honor.

2 THE COURT: Go ahead, Mr. Thomas.

3 MR. THOMAS: I apologize, Your Honor. I'm having
4 an issue with my screen that I was not having a moment ago.
03:20PM 5 It will take me a moment.

6 (Pause in proceedings)

7 MR. THOMAS: Thank you for your patience,
8 Your Honor. I apologize.

9 We heard a lot today, so I'm going to try and
03:21PM 10 actually start with something that Mr. Tamkin said at the
11 end, and that is he was talking about the relative size of
12 the parties here.

13 Mr. Tamkin said that ViVitro is this big company
14 and we are a big threat to BDC, Biomedical Devices. And what
03:22PM 15 I want to point out is that ViVitro is also a small company.
16 Their evidence in the record is that ViVitro has, I think
17 it's, ten full-time employees plus another six in a
18 subsidiary in France.

19 So we are actually quite small, and the new product
03:22PM 20 that ViVitro is intending to bring to the market has lots of
21 other features. There's other things in that product that
22 are not covered by the patent.

23 Oops, I just went to the wrong slide. All right.
24 There we go. We have invested a lot in R&D to bring this new
03:23PM 25 product to the market, and the new features that are part of

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1 this product meet market needs, and there's a bunch of new
2 features in this thing that do not have any relationship to
3 the patented product.

03:23PM 4 There's a new patent-pending bypass restricter
5 valve that's incorporated into our product. There is a new
6 patent-pending control algorithm that's in our product. Our
7 test chambers are physically separated, unlike this sort of
8 linear device that BDC uses in its VDT-3600i product, gives
9 improved visibility. That's Mr. Mouneimne's declaration
03:23PM 10 evidence, is that these are the things that he wants to bring
11 to the market.

12 Those features are undisputedly not covered by the
13 patent, and these are the things that ViVitro is planning to
14 market and pitch its product on, just like BDC pitches its
03:24PM 15 product based on things that are not the excess volume area.

16 You can't find anywhere in BDC's product literature
17 anything about check out our really cool excess volume area.
18 We've got a compliance chamber that's amazing. There's none
19 of that.

03:24PM 20 So one of the issues that we talk a lot about in
21 our brief is that there is just no tie between what BDC says
22 are these threatened harms to what is actually in the patent,
23 and that's really important. What BDC is afraid of is these
24 new features that we have.

03:24PM 25 That's why BDC is here asking for an injunction.

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1 That's why BDC wants to keep us off the market, because
2 that's what they're afraid of is the new features. The BDC
3 product, the VDT-3600i, according to the argument we heard
4 today and the evidence in the record, it's been out at least
03:25PM 5 ten years. What have they been doing since then? What have
6 they done to their product to make it stay competitive and to
7 improve it in that intervening time? It's not in the record.

8 I believe Mr. Tamkin said -- and the transcript
9 will correct me if I misheard this, but I believe he said
03:25PM 10 that BDC was planning on introducing a new product in the
11 next year. That's not in the record.

12 There is some statements about that they have R&D
13 expenses, but they're generic. There's no direct testimony
14 or evidence about what that R&D is directed to. They have
03:25PM 15 other stuff. There's other products.

16 THE COURT: Counsel, can I stop you for a second.
17 We have a colleague here from our staff here to --

18 (Off-the-record discussion)

19 THE COURT: Go ahead.

03:26PM 20 MR. THOMAS: I just wanted to throw -- I wanted to
21 make that point to just sort of set the context for frankly
22 why ViVitro thinks we're really here. You know, there are
23 issues that BDC has raised about the infringement of their
24 product, you know, but the defenses we're putting forward
03:26PM 25 here in this court and the defenses we've been talking to

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1 opposing counsel about, those are the reasons we don't think
2 that we infringe.

03:26PM 3 We're not a copycat. You can look at the products.
4 They don't look the same. There's images of them in the
5 record and in Mr. Mouneimne's declaration, so it's a stretch
6 to say that we are a copycat or we're ripping somebody off
7 when that's not really supported by the evidence.

03:27PM 8 So I think -- one thing I'd like to remind the
9 Court is that the plaintiff -- to be awarded a preliminary
10 injunction, the plaintiff must make a, quote, clear showing
11 that it is entitled to relief. That's from the Winter case.

03:27PM 12 And BDC had some arguments about the balance of the
13 harm sort of tipping far on its side. As I understand it,
14 those arguments are related to the more sliding scale type
15 test that the Ninth Circuit applies. We understand
16 Your Honor has to apply that test just for the record. We
17 note that we object. We think that test is inconsistent with
18 the e-Bay case and the Winter case.

03:27PM 19 THE COURT: Wait. I'm sorry. I missed the first
20 part. I was looking at your screen. What test is
21 inconsistent?

03:27PM 22 MR. THOMAS: There's a sliding scale test that the
23 Ninth Circuit uses when evaluating whether or not -- how to
24 balance the factors or consider the four preliminary
25 injunction factors. Our position is that those -- that

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1 sliding scale test is inconsistent with Supreme Court
2 precedent, but we understand that you are bound to apply the
3 Ninth Circuit's test. We'll take that up -- if we ever get
4 there, we will deal with that later.

03:28PM 5 I would say that that test is if there are serious
6 questions going to the merits, the plaintiff still has to
7 show that the balance of hardships tips sharply in the
8 plaintiff's favor. That's the Ninth Circuit test, and we
9 don't think that that test is satisfied either.

03:28PM 10 On the likelihood of success issue, we're going to
11 cover the substantial -- likelihood of success, we think
12 there's substantial questions of infringement and validity
13 here. On the irreparable harm, we think that BDC has failed
14 to show an immediate and irreparable harm primarily because
03:28PM 15 of the causal nexus between the evidence and arguments that
16 they have put in and the patent, and we think that the
17 evidence is speculative and conclusory.

18 Balance of hardships weighs against an injunction,
19 and the public interest is served by ViVistro's upcoming
03:29PM 20 launch.

21 On the likelihood of success, BDC has to show both
22 infringement and validity of the patent, infringement meaning
23 each and every limitation of the claims is in the accused
24 device. And on the validity issue, the claims are novel and
03:29PM 25 not obvious over the prior art. Prior art, you will hear us

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1 say that. Are you familiar with that term, Your Honor?

2 THE COURT: To some extent but not like you all
3 are.

4 MR. THOMAS: That's right.

03:29PM

5 The way prior art was explained to me is it's just
6 what's out there, what's known. We talk about the art is
7 like a field of technology or a field of work. The art here
8 is in testing of these cardiac devices, these prosthetic
9 heart valve devices.

03:29PM

10 You're familiar with, like, the reasonable person
11 standard in lots of other contexts of law. Patent law has a
12 reasonable person standard. That's the person having
13 ordinary skill in the art or person of ordinary skill in the
14 art, depends on how people say it, how they were brought up
15 and what partners taught them. You'll sometimes see that
16 abbreviated --

03:30PM

17 THE COURT: I saw that in a brief. Break that down
18 for me. What does that mean, in this context? Does that
19 mean somebody that is familiar with cardiac valve testing or
20 just a testing engineer in general? What does that mean
21 exactly?

03:30PM

22 MR. THOMAS: Yeah. So the -- it -- I can't
23 remember and I might ask Mr. Harbin to thumb through
24 Dr. Dasi's declaration, in the early parts of his
25 declaration, that exhibit. I do believe we address what we

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1 believe would be the -- well, we call it the level of skill
2 in the art. How sophisticated is this reasonable person?
3 Just like in medical malpractice, a doctor is pretty -- you
4 know, a specialized doctor has a very high level of skill, so
03:31PM 5 that sort of sets his level of care.

6 In a genetics pharmaceutical context or something
7 like that, you might have a very skilled artist and it might
8 be somebody who has to have a Ph.D., versus in a simple
9 mechanical device like the farm equipment that was mentioned
03:31PM 10 in some of the cases earlier, it might be somebody with just
11 a few years of experience.

12 In this context I believe that -- and I'm sure I'll
13 be corrected if I'm wrong. But generally speaking, I think
14 in this case it is a person with some training in this area
03:31PM 15 like mechanical engineering or biomedical engineering, and
16 probably with some experience working with these devices.

17 If you -- in your research and your law clerk's
18 research and looking at things, if you look at the Winslow
19 tableau, it's a very old construct and sort of mental picture
03:32PM 20 for how, what the person of ordinary skill in the art does.

21 And the word picture is the person of ordinary
22 skill in the art is sitting at, like, a workbench with a
23 bunch of -- with the prior art documents and the things that
24 are known in the art spread out on a table in front of her
03:32PM 25 and looks at all that stuff and says: What problem am I

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1 trying to solve? What does the art -- and by the way, the
2 person of ordinary skill in the art is presumed to have --
3 this legal fiction, right, but under the law the person of
4 ordinary skill is presumed to have knowledge of all these
5 documents.

6 I think we have this Lu journal article. We've got
7 the Dynatek manual. We've got some other references we talk
8 about. Another word we use is references sometimes.

9 It doesn't mean that the person of ordinary skill,
10 because it's an objective perspective, it doesn't mean they
11 actually read the document. They're presumed to have known
12 it if it is proven to be publicly available and some other
13 factors that are not really in dispute.

14 There's -- at least at this point in the case, at
15 this preliminary stage, there's no dispute that any of these
16 documents are not known to a person of ordinary skill in the
17 art.

18 Thank you, Mr. Harbin. Document 80-2, which is
19 Exhibit 2, paragraph seven, that's Dr. Dasi's declaration.
20 He says the person of ordinary skill would have at least a
21 bachelor's degree in biomedical engineering or a related
22 field such as mechanical engineering, who also has three to
23 five years of experience with cardiovascular devices; or
24 alternatively he could have an advanced degree, maybe a
25 Ph.D., with a little bit less experience.

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1 So that's the person that we all -- the lawyers,
2 the experts, and the Court -- are supposed to evaluate the
3 patentability of the claims. That's the perspective we
4 apply.

03:34PM

5 Does that answer your question, Your Honor?

6 THE COURT: Yes. Thank you.

7 MR. THOMAS: So then at the preliminary injunction
8 stage, an accused infringer can defeat a showing of
9 likelihood of success on the merits by demonstrating a
10 substantial question of validity or infringement.

03:34PM

11 So we believe we've done both, but you only have to
12 do one or the other because sort of the general idea of that
13 is you can't find infringement of an invalid patent. One is
14 the infringement question is evaluated at trial from a
15 preponderance of the evidence. The plaintiff has that
16 burden.

03:34PM

17 Invalidity is an affirmative defense, so the
18 defendant has the burden to prove that at trial by clear and
19 convincing evidence. We'll talk about how that standard
20 works in the preliminary injunction context, but that's
21 generally how you view it.

03:35PM

22 If you find infringement, then the -- say the jury
23 found that a patent is infringed, the defendant can assert,
24 well, even if it was infringed, the prior art invalidates the
25 patent. And if they prove that by clear and convincing

03:35PM

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1 evidence, then there's no liability. So it's a defense to
2 liability.

3 I'm going to go to slide 5. Mr. Tamkin is right
4 that there's a lot of claim construction issues here. Claim
03:35PM 5 construction is a question of law, and the purpose is just
6 like statutory construction. What did -- what do the terms
7 mean? What is within -- well, we sometimes say: What's
8 within the scope of the term?

9 Just like with statutes where you say, well, I'm
03:36PM 10 interpreting a statute to figure out what conduct the
11 legislature was trying to prescribe or conscribe, trying to
12 address. In a patent context the Court construes the patent
13 and the terms within the patent to figure out what was the
14 invention and what does the patent claim cover. Claim is
03:36PM 15 like a -- sometimes thought of as like a fence around the
16 patentee's property.

17 We -- the claim construction process helps figure
18 out where that boundary is in the same way that you do with
19 the statute. And because it's so key understanding what the
03:36PM 20 scope is, it has -- it's important to both infringement and
21 invalidity. The terms have to be construed the same way for
22 infringement as they are for invalidity.

23 And I think that's one of the things that we, that
24 ViVitro takes issue with in terms of the arguments presented
03:37PM 25 by BDC is that they seem to be a tension between viewing the

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1 patent one way in the scope of infringement and a different
2 way in the scope of invalidity.

03:37PM 3 So the biggest dispute we've heard a lot about
4 today is this excess volume area and under compression. What
5 evidence do we look at in terms of claim construction? The
6 Phillips case from the Federal Circuit -- I don't remember
7 the full name of it. Everybody in patent law just calls it
8 Phillips.

03:37PM 9 It was an en banc case from several years ago, and
10 it sort of lays out the hierarchy of evidentiary categories
11 of evidence when you look at claim construction. The first
12 thing is the claim itself. How is the word used within the
13 claim?

03:38PM 14 For example, you know, here we talk about the
15 excess volume area is providing a volume for storing a volume
16 of test system fluid when the test system fluid is under
17 compression. That whole phrase gives us all some context
18 about what is intended by or meant by an excess volume area.
19 That's something that it has to do according to the way it's
03:38PM 20 claimed.

21 The second thing that is most important and really
22 right up there with the claim itself is what we call
23 intrinsic evidence. Intrinsic evidence to a patent includes
24 all the stuff within the four corners of the patent document.
03:38PM 25 The written description is what we call all of the lines of

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1 text, the columns of text, the figures.

2 But it's also the prosecution history of the
3 patent, the back-and-forth negotiation process with the
4 patent examiner and the Patent Office. And so we look to
03:39PM 5 things like: How did the patentee characterize their
6 invention? What did they say? What did BDC say about the
7 excess volume area or compliance chamber during prosecution
8 when they were trying to convince the Patent Office to give
9 them this monopoly patent right? The adage, "Anything you
03:39PM 10 say can and will be used against you," that's the same sort
11 of thing.

12 Then the third level is going to be extrinsic
13 evidence -- expert testimony, dictionaries, other documents.
14 Those -- so all those get used and they're all admissible
03:39PM 15 types of evidence, acceptable types of evidence for
16 interpreting the claims, but they have precedence and
17 priority in the order that I presented them.

18 So I want to then talk now about what the patent
19 really says about the excess volume area. If you do a
03:40PM 20 control F for excess volume area in the patent, you're not
21 going to find it very many times. If you just search for
22 excess, it's not going to be there many times.

23 The way the patent is sort of put together, you'll
24 see these headings like summary and I think there's one that
03:40PM 25 is detailed description of the invention. As the patent

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1 application was originally filed, there was only two
2 instances of talking about an excess volume or excess volume
3 area, and it's down in the detailed description of what you
4 see on the screen here is the Fig. 3 of the patent.

03:40PM 5 This is one of the two embodiments that Mr. Tamkin
6 was talking about. He showed a colorized figure of the other
7 embodiment. I'm showing the -- which is in Fig. 6. And I'm
8 showing a colorized picture of Fig. 3, the first embodiment.

9 The reason I sort of make that distinction between
03:41PM 10 the two embodiments is that when the patent application was
11 originally filed in 2009, this figure was not part of the
12 application. It was not there. They had the Fig. 6 that
13 Mr. Tamkin walked you through earlier. That is where the
14 patentee sort of puts its stake in the ground and says here's
03:41PM 15 what I think I invented in what is called a provisional
16 application.

17 A year later they follow that up with what's called
18 a non-provisional application, sort of the official filing.
19 We're really going to actually get into the bureaucratic
03:41PM 20 process at the office of negotiating over claim scope. This
21 figure and the description that's related to it was added by
22 BDC when it filed the non-provisional application.

23 Even then, there was still just these two or maybe
24 three instances where it talks about an excess volume area.
03:41PM 25 And when it does that, it was only talking about compliance

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03:42PM 1 chambers. The patent said that the compliance chambers,
2 quote, provide excess volume area for fluid to move into when
3 the piston, dot, dot, dot, performs a compression stroke, end
4 quote. That's at column 3, line 15. And then I think it's
5 again referenced at column 12, lines 15 and 16.

03:42PM 6 In another place it says, quote, on the downward
7 stroke, meaning that's when after -- as Mr. Tamkin talked
8 about sort of the stroke of the piston pushes the fluid
9 through the device. Now you're going in the other way. It's
10 coming back down. On the downward stroke the pressure in the
11 test chamber 106 returns to an initial level, and excess
12 volume returns to the compliance chambers 135. That's at
13 column 12, lines 29 to 31.

03:42PM 14 I think that you asked a question about what -- the
15 patent talking about release. I think that's what the patent
16 is talking about with release. You have fluid flow up
17 through here (indicating). And then as it gets up to here
18 where I have the end of the yellow, it goes up into the
19 compliance chamber and what is later claimed as the excess
03:43PM 20 volume area.

03:43PM 21 Then on the downward stroke, down here at the
22 bottom, that's the drive mechanism that does the downward
23 stroke. Then the fluid flows back down out of the excess
24 volume area and compliance chamber and then back down through
25 the return path through this one-way valve.

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1 That was it in 2010. Four years later --

2 THE COURT: Wait. Let me stop you.

3 MR. THOMAS: Yes, sir.

4 THE COURT: What is the distinction that you're

03:43PM

5 trying to make between Fig. 3 and Fig. 6? Is it just that
6 Fig. 3, which came in a bit later, the non-provisional added
7 this nomenclature of compliance chamber, and so that's how we
8 should really see it? Or what exactly is the -- because
9 otherwise the physics seem the same.

03:44PM

10 MR. THOMAS: The physics are the same, Your Honor,
11 yes. This description that accompanied Fig. 3 was the first
12 time BDC ever mentioned an excess volume area. So in the
13 initial embodiment they described the same process. The
14 fluid goes up; it goes into the compliance chamber. It is
15 called a compliance chamber in Fig. 6. It's referenced as a
16 compliance chamber in both of these embodiments. That's
17 consistent.

03:44PM

18 THE COURT: You're saying excess volume area was
19 first mentioned in the non-provisional?

03:44PM

20 MR. THOMAS: Correct. That's correct.

21 Then four years later in -- well, three years after
22 the non-provisional, on December 13 when BDC filed the
23 application that ultimately became this patent, they actually
24 added some new description. That's all in the summary of the
25 invention section.

03:44PM

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1 And if you look at the language, again just
2 control F for excess, all of the instances in that summary
3 section that talk about an excess volume area, those really
4 just mimic or parrot the language of the claims. That's a
5 typical -- that's not -- you know, as a patent practitioner,
6 I can tell you that's not all that unusual. Like, there's
7 nothing wrong there.

8 It's just that the way you sort of describe and
9 disclose things, you want it to sort of match the claims so
10 that you can make arguments like BDC is making that say, oh,
11 well, we've got an excess volume area. And that can be, you
12 know, anything. That's not limited to a compliance chamber.
13 It's an excess volume area. Those things are different. I
14 think that the issue that we take is that they're not
15 different, not really.

16 Before I move off -- well, yeah, I'm going to
17 switch to the next slide. Here is a snippet of the
18 prosecution history. Now, this is the prosecution history of
19 a child patent. In patent practice you can file an
20 application. You can get allowed claims. Then you can file
21 what we call a continuation application, sort of like reverts
22 back to the original filing date to allow you to continue
23 to -- maybe you didn't in your negotiation process with the
24 Patent Office, you didn't get the scope that you wanted. You
25 couldn't convince the examiner to give you what you wanted

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1 the first time, so you can keep going.

2 You can keep the application alive so you can
3 continue claiming different embodiments, claiming or
4 emphasizing different features to give a patent owner a
03:46PM 5 varying amount of claim scope. And we in patent world, we
6 consider that a good thing. That's what patent owners want
7 to have.

8 But claim terms, this is sort of black-letter
9 patent law. Claim terms used in the same way in different
03:47PM 10 patents in a family, we sometimes call that a family of
11 patents or a family of patent applications. Claim terms in
12 the same family are construed the same way.

13 If they're used the same way, they basically all
14 relate to the same specification. They share the same
03:47PM 15 written description and figures with the minor changes that I
16 told you about, but the description is all the same. So this
17 intrinsic evidence that is related to the prosecution of the
18 child patent applies the same to interpretation of the claims
19 for this patent because they're claiming the same excess
03:47PM 20 volume area.

21 BDC equates an excess volume area with a compliance
22 chamber in the prosecution. Again this is back in 2015.
23 Years before we were in court now and trying to take
24 litigation positions, this is the position that BDC was
03:47PM 25 trying to take to the Patent Office trying to win the grant

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1 of the patent.

2 The argument here is that in the first callout --
3 this is also in their briefs and in Dr. Weinberg's
4 declaration -- that BDC claimed that using a compliance
03:48PM 5 chamber to store excess volume -- again, compliance chamber
6 provides excess volume using a compliance chamber to store
7 excess volume of test fluid in a realtime system -- is well
8 known.

9 Excess volume area -- compliance chambers to store
03:48PM 10 excess volume was well known. That means well known to a
11 person of ordinary skill in the art at the time of the
12 invention but, claims BDC, but in an accelerated cyclic test
13 system.

14 The excess volume area is -- that's the last
03:48PM 15 highlight in the first box -- is entirely new. That's what
16 we have done that's new. Using an excess volume area in an
17 accelerated system is entirely new.

18 There's some discussion in the briefing about the
19 differences between the needs that you have for when you're
03:49PM 20 testing a heart valve, artificial heart valve, in realtime,
21 sort of watching it like it's beating at the same rate as a
22 normal human heart versus this durability testing or
23 accelerated testing that speeds it up and really kind of
24 like -- it's an artificial construct.

03:49PM 25 You've got to simulate years and years worth of

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03:49PM 1 wear and tear. They're not exactly the same. They don't
2 have exactly the same parameters and needs although, as
3 Exhibit 13 to our opposition brief shows, there is a product
4 that BDC sells that is actually both an accelerated and
5 durability and realtime tester.

6 So that was their claim. An accelerated compliance
7 chamber to store excess volume was well known for realtime
8 but entirely new for accelerated.

03:50PM 9 Now, later in the same document -- oops, I went to
10 the wrong slide -- the BDC argued to the Patent Office the
11 purpose of the excess volume areas, i.e., compliance chambers
12 as claimed in the method of claim 1, is to act as a resilient
13 spring.

03:50PM 14 They didn't write: For example, one type of
15 compliance chamber or one type of excess volume area would be
16 a compliance chamber. In 2015 they said they -- BDC said
17 compliance chamber and excess volume area were one and the
18 same. That's what i.e. says.

03:50PM 19 Dr. Weinberg in his declaration here says in
20 paragraph seven of docket 61: One type of excess volume area
21 is a compliance chamber. I think it is notable that -- as
22 I've already said, there's -- the patent does not disclose or
23 teach any other excess volume area except for the compliance
24 chamber. The patentee says here in June 2015 an excess
03:51PM 25 volume area, i.e., compliance chamber.

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03:51PM 1 Today and in this case BDC is arguing, well, there
2 can be different types. They want that to mean the type that
3 they believe is in the ViVitro forthcoming product. But up
4 to this point, the only thing that they have ever identified
5 as providing an excess volume is a compliance chamber. They
6 still haven't pointed to anything else that's an excess
7 volume area to date. There's no other examples besides the
8 allegedly infringing product.

03:52PM 9 So all of that is to say that when you interpret
10 what is an excess volume area, that it really is just a
11 compliance chamber. Or if it's not a compliance chamber, it
12 has to have some type of structure -- that's how I think we
13 framed it in the brief is that it has to have some structure
14 that provides this benefit.

03:52PM 15 We all agree that compliance chambers do what
16 Dr. Weinberg is describing here in paragraph seven. They
17 provide a spring effect -- or maybe that was on the previous
18 slide, on slide 7. It acts as a spring. It dampens the
19 effects of changing pressure gradients. It absorbs pressure.

03:52PM 20 In our brief and in Dr. Dasi's declaration, he
21 talks about -- this is a little bit of a tangent, but he
22 talks about how, you know, plumbers and stuff had solved
23 what's called the water hammer effect, you know, a hundred
24 years ago or something like that.

03:52PM 25 So this was a solution in terms of, like,

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1 compliance chambers were known. Nobody talked about excess
2 volume areas until BDC put it in their patent and then in the
3 prosecution and in the arguments really said that the
4 compliance chamber provides the excess volume. It's a
03:53PM 5 structure that provides the excess volume. And so to have an
6 excess volume area, there has to have -- well, let me back
7 up.

8 Back within the context of the claim again where it
9 says that it provides excess volume when the fluid is under
03:53PM 10 compression and it's a space to flow into when the fluid is
11 under compression, that was -- I know in our brief we pointed
12 to a brief that BDC filed in a validity challenge to the '224
13 patent, this child patent, where they argued that the fluid
14 must flow into a space. The space or the excess volume has
03:54PM 15 to sort of hold this fluid. It has to go in there.

16 So as the claim sort of -- that last phrase of the
17 claim that Mr. Tamkin sort of showed over and over was that
18 the excess volume area has fluid, holds fluid or stores fluid
19 when the device is under compression. So to have an excess
03:54PM 20 volume area, there has to be fluid flow into it. It's a
21 place or it's a structure.

22 Just a moment, Your Honor.

23 THE COURT: Isn't that consistent with what he
24 argued a few hours ago, that the liquid, once the tubes are
03:55PM 25 compressed, will flow into the volume of area that they

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1 previously occupied?

2 MR. THOMAS: It is only consistent to the extent
3 that there is some space. I think the way I'd characterize
4 that is, you know, the rings, the compliance rings of the
03:55PM 5 accused device, he says they get a little bit squished by the
6 fluid when it flows in. Like if you sit on an inner tube,
7 it's going to kind of squish down a little bit. And whatever
8 that space is, according to BDC, that's the excess volume
9 area -- except in this preliminary response that they filed
03:55PM 10 in 2018, BDC argued that when you have material, deformation
11 of material, that provides compliance.

12 I will represent to you now, we call those
13 devices -- in our marketing literature we call those rings.
14 We call those compliance rings. Right. So they provide
03:56PM 15 compliance, absorb some pressure, act as a little bit of a
16 spring, yes.

17 But BDC argued in its preliminary response to the
18 Patent Office for the purpose of preserving the validity of
19 its claims, they argued that material deformation is not a
03:56PM 20 space for fluid to flow into. And so --

21 THE COURT: Where is that in the record?

22 MR. THOMAS: That is -- you know, I wish I could
23 find it. I could have sworn I had it in my notes.

24 THE COURT: That legal filing is attached to one of
03:57PM 25 the declarations, you're saying?

Petitioner's Exhibit 1037

1 MR. THOMAS: Yes, Your Honor.

2 THE COURT: We'll find it. That's okay. I don't
3 need to refer to it now.

4 MR. THOMAS: Okay. It is, I think -- okay.

03:57PM

5 It is mentioned in our brief. We have a case
6 citation in a footnote, I know, that says that patent owner
7 statements in an IPR proceeding are useful and important for
8 understanding the real scope of a claim.

03:57PM

9 So that's again, you know, it's their statements
10 about the scope of the claim, and they were distinguishing a
11 reference called Elizondo, or sometimes called St. Jude,
12 which had some type of plastic or elastic, some sort of
13 material that was described as a -- that was described as
14 providing compliance.

03:57PM

15 It's Exhibit 7, Your Honor. That's the brief. So
16 if you look for our references to Exhibit 7 in the opposition
17 brief, then you'll --

03:58PM

18 THE COURT: Let me -- I'm going to give you plenty
19 of time while I'm interrupting you here, but let me drill
20 down even more on this tube. Is the area that the liquid
21 would flow into on compression just as easily the sides, the
22 bottom as the top? In the diagram that Mr. Tamkin showed,
23 the yellow was on the top.

03:58PM

24 Was the design of ViVitro's product such that on
25 compression the liquid would always flow on the top of those

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03:58PM 1 tubes, or is it just a question of molecular physics as to
2 which portion of the tube compresses first, that's where the
3 liquid would flow so it would have an equal chance of flowing
4 into the bottom, the sides; or was it designed with the
5 specific area above the tubes as the area that the liquid
6 would flow into?

03:59PM 7 MR. THOMAS: Okay. So if I understand your
8 question correctly, I believe the answer is going to be that
9 it flows -- the liquid flows all around. Now I'm going to
10 switch over to the document camera, the elmo. This is
11 exhibit -- well, I don't know which exhibit number it is, but
12 it's at docket 88-2. This is the under-seal version of our
13 documents that we produced to BDC in this litigation.

03:59PM 14 So this is at ViVitro page 4, production number
15 ViVitro 4. This is sort of our explanation of all the
16 different parts and pieces.

17 THE COURT: Yes. I've looked at this, yeah.

18 MR. THOMAS: I'm going to actually go to the next
19 one, which is actually ViVitro 3.

03:59PM 20 So in this picture ViVitro just tilted that CAD
21 diagram. What you can see is that there -- actually there's
22 13 different of these compliance rings. You can count them
23 up here. So there's four at the very bottom. There's three
24 in this diagram right below the valve, and then there's two,
04:00PM 25 four, six up at the top.

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1 The reason we tilted it is so that you and frankly
2 so that BDC could see this as well, because our confusion
3 was, well, where's the excess volume area? Where's the
4 compliance chamber that fluid is flowing into? The
04:00PM 5 declaration of Mr. Mouneimne says that the fluid -- this is
6 filled all the way to the top just like -- just like the --
7 you want to get all the bubbles out.

8 You can see at the very top here this sort of plate
9 here at the top, that's actually angled. The reason that's
04:00PM 10 angled is so that it allows bubbles to go out at that
11 debubbler port on the top left. So the fluid is actually
12 surrounding and completely filling this whole chamber, and so
13 it's pressing on the compliance rings from every direction.
14 I think that's the answer to your question.

04:01PM 15 So this design, this is very different from what
16 you see in the '935 patent. We've got compliance rings. We
17 want to have compliance in our system to absorb pressure, but
18 we do it in a totally different way than what the patent
19 says. I just wanted to just sort of illustrate those --

04:01PM 20 THE COURT: Can the Court, though, for our
21 purposes, though, disregard the compliance rings below the
22 valve? Those aren't at issue here?

23 MR. THOMAS: They are not, no. It's just an
24 illustration.

04:02PM 25 THE COURT: Okay.

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1 MR. THOMAS: The only ones that are at issue in
2 terms of the infringement case, these are the ones that BDC
3 has the burden to point to which things are the -- what are
4 the parts of the accused apparatus that satisfy the claim.
04:02PM 5 What they've pointed to is the area, not the rings
6 themselves, but the area adjacent to the rings is the excess
7 volume area.

8 Our position about arguing that it's got to be
9 structure is that it has to be bounded in some way. That's
04:02PM 10 totally like what -- where does the area around the
11 compliance rings start and where does it stop.

12 You can see where the compliance chamber in the
13 '935 patent starts and stops. There's an embodiment in the
14 claims that talks about you can put a membrane there and
04:02PM 15 that, you know, there's a place where it goes. There's no
16 place that you can actually point to that is an excess volume
17 area in this device.

18 THE COURT: Your argument that it has to have a
19 structure is because of the equivalents that the -- that BDC
04:03PM 20 made in its construction, the equivalents to the containment
21 chambers?

22 MR. THOMAS: The compliance chambers.

23 THE COURT: Compliance chambers.

24 MR. THOMAS: Yes, Your Honor. That's part of it,
04:03PM 25 yes, Your Honor, that BDC has equated during the prosecution

Petitioner's Exhibit 1037

1 the compliance chambers to the excess volume area. The
2 disclosure of the patent only states that the excess volume
3 area is provided by compliance chambers. When you interpret
4 the claims to understand what did the patentee really mean at
04:03PM 5 the time that they wrote the claims, you look to what did
6 they actually invent.

7 And we don't dispute that there is -- there's cases
8 that sort of say, well, you can't limit to -- you can't limit
9 the claims strictly to what is in the embodiments of the
04:04PM 10 patent. There are cases that say that. There's just as many
11 cases that say if you only disclose one embodiment, you can
12 take that into account in figuring out what the claim term
13 means.

14 The question really comes down to what did the
04:04PM 15 patentee supposedly invent. What did they mean? We are
16 suggesting to you that the best information, the most
17 reliable information about what they really meant is what
18 they said at the time, not what they're saying today.

19 THE COURT: So this may be outside of what the law
04:04PM 20 requires me to look at -- and, of course, if that's the case,
21 I won't consider it -- but then why design it this way? Did
22 it have some function over and above, or is this a clever way
23 to design around the exact language that BDC used in putting
24 its claims together?

04:05PM 25 MR. THOMAS: I don't know --

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1 THE COURT: Why isn't that in the record to show --

2 MR. THOMAS: Why they designed it this way?

3 THE COURT: Yeah.

4 MR. THOMAS: Well, for one thing, intent is not

04:05PM

5 relevant to the question of infringement. The claims are
6 interpreted according to what happened back at the time of
7 filing and what they meant at the time of filing, not based
8 on what we're doing now.

9 Third, I -- again, the rings are there to provide

04:05PM

10 compliance, to absorb some pressure, and to deal -- that's
11 one of the ways that this device deals with pressure. You
12 said: Is it a clever way to design around what they believed
13 in the patent?

14 I am not stating yes or no at this point whether

04:05PM

15 that was intended, to design around the patent, but designing
16 around claims is something that patent attorneys advise their
17 clients on how to do all the time.

18 Patent infringement is effectively a strict

19 liability tort. So it doesn't matter whether you intended to

04:06PM

20 do it or whether you intended to get around it. The -- if
21 the design does not fit within what the claim says, then
22 you're good. There's no liability.

23 THE COURT: All right. Please proceed.

24 MR. THOMAS: The last -- another point I am going

04:06PM

25 to make since we're talking about infringement is that fluid

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1 does not flow -- we talked about earlier when fluid is
2 flowing here, fluid does not flow into these compliance
3 rings. So there's no fluid communication between these
4 compliance -- between the -- there's a gas area. There's a
04:06PM 5 compressible gas area, but it's contained within the rings.

6 That compressible gas area is not in fluid
7 communication with the return chamber, with what BDC points
8 to as the return chamber, this top part, open space, because
9 fluid doesn't flow in and out of there.

04:07PM 10 That is what happens in the '935 patent. We've
11 talked sort of exhaustively about that, how fluid goes up
12 into it. I think I'm going to go back to slide 6. These
13 annotations, these colorings here, were also provided --
14 created by BDC in that Exhibit 7, I think it was, the
04:07PM 15 preliminary response.

16 This language that I'm going to quote to you is
17 from their argument explaining how this works: Since the
18 channel, and then in parentheses, green, blue, and orange
19 sections combined, is full of fluid at the start when the
04:07PM 20 drive mechanism in pink -- excuse me, Your Honor.

21 Now you can see slide 6 and the colors.

22 THE COURT: This is 3 actually.

23 MR. THOMAS: This is slide 6 --

24 THE COURT: Oh, slide 6.

04:08PM 25 MR. THOMAS: -- showing Fig. 3 of the patent. Then

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1 BDC described this annotated figure as saying: Since the
2 channel is full of fluid at the start, when the drive
3 mechanism in pink -- that's the drive mechanism -- pumps more
4 fluid into the system, it increases the pressure in the
04:08PM 5 system and the volume of the excess fluid, i.e., in addition
6 to that already in the channel, is displaced into compliance
7 chambers 135, parentheses, in yellow.

8 So BDC describing its invention says fluid is
9 displaced into this compliance chamber -- not excess volume
04:08PM 10 area, compliance chamber -- and then, as we talked about
11 earlier, it's released later.

12 So our device with the compliance rings, you don't
13 have fluid flowing into a gas chamber. It's blocked off by
14 the plastic part of the rings. I do have that -- I have now
04:09PM 15 found in my notes the quote that I was looking for a moment
16 ago.

17 Exhibit 7 at 37, page 37, BDC argued, quote: The
18 pressure to the extent mitigated presumably is through
19 deformation of a material, not by providing a space in
04:09PM 20 addition to the channel for storing excess fluid.

21 That was the argument -- actually I'll go to the
22 next one, next quotation, Exhibit 7 at page 47, quote: The
23 pressure to the extent mitigated presumably is through the
24 deformation of a material, not by providing a space in
04:10PM 25 addition to the channel, a space in addition to the channel,

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1 not -- I'm going to step away from the quote, not just the
2 space that's sort of where the compliance rings sit in but a
3 space in addition to the channel just like here in Fig. 3,
4 this top hat little area in yellow, compliance chamber 35.
04:10PM 5 Back to the quote: Not by providing a space in addition to
6 the channel for storing excess fluid.

7 Thus, Elizondo, the asserted prior reference in
8 that IPR, has no, quote, excess volume area for storing fluid
9 in excess to that contained in the channel.

04:10PM 10 So we submit that that is our compliance rings had
11 material deformation. That's what happens. They get
12 squished. So by BDC's argument, in 2018 we are doing
13 something like what the prior art referenced Elizondo was
14 doing. We have material deformation, and it should be, just
04:11PM 15 like BDC said in 2018, no excess volume area. They
16 distinguished the prior art then. They should be held to it
17 now.

18 THE COURT: Give me another two minutes, though, on
19 what exactly was going on in that submission.

04:11PM 20 MR. THOMAS: In that submission?

21 THE COURT: Yeah.

22 MR. THOMAS: So we talked some about TA
23 Instruments. They were sued for infringement. We'll talk in
24 a bit about how BDC made a lot of the same claims against TAI
04:11PM 25 that they're making against us. TAI was accused of

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1 infringing multiple patents in this family, so the '935
2 patent plus the '224 patent and I think one other.

3 In response, TAI filed a request for what is called
4 an inter partes review at the Patent Office seeking to
04:11PM 5 invalidate the '224 patent. They didn't challenge the '935
6 patent. I think in one of the other patents, as I read their
7 papers, they basically gave up and conceded infringement on
8 one of the patents.

9 But for the '224 patent they filed this request,
04:12PM 10 and what that tries to do is ask the Patent Office, hey, we
11 think you made a mistake in granting this patent in the first
12 place. Please take another look and rule that the claims
13 should never have been found patentable.

14 So TAI filed what's called a petition. It's a big
04:12PM 15 long document. That is not in the record. BDC had the
16 opportunity to and did file what's called a preliminary
17 response or patent owner preliminary response to argue to the
18 Patent Office we do not think you should take a look at this
19 patent again. You should just leave it alone. Don't
04:12PM 20 invalidate any of my claims. Don't even -- it's called
21 instituting a trial.

22 If you look at the language in that document, it
23 will say over and over again: You shouldn't institute PTO.
24 You should not institute a trial for X, Y, and Z reasons.
04:13PM 25 One of those reasons was do not institute a trial because the

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1 standard for that is, is there is a reasonable likelihood
2 that the petitioner will prevail?

3 So BDC was arguing that there was no way the
4 petitioner could prevail in invalidating the claims over
04:13PM 5 Elizondo in another reference because that Elizondo reference
6 only had material deformation which was not an excess volume
7 area. Therefore, you can't show this element is satisfied or
8 demonstrated in the prior art that you submitted; therefore,
9 we win. That was their position.

04:13PM 10 The PTO did not address that because the settlement
11 happened before that happened. The same as the settlement
12 occurred before a hearing on the preliminary injunction that
13 was at issue then never happened as well.

14 THE COURT: Thank you.

04:14PM 15 MR. THOMAS: I want to talk about invalidity next.
16 So we talked a little bit ago about this statement from the
17 prosecution history here on slide 7 -- yes. BDC argued
18 during prosecution that compliance chambers to store excess
19 volume in realtime systems were well known but totally new
04:14PM 20 for accelerated systems.

21 We submit that the prior art that is now of record
22 in this proceeding shows that that is false. Lu is a paper
23 from 2003 and it itself cites and describes accelerated
24 testers with adjustable compliance. At the bottom there,
04:15PM 25 that's highlighted. The systems -- it's reviewing multiple

Petitioner's Exhibit 1037

1 accelerated systems in 2003, six years before the filing of
2 the patent application.

04:15PM 3 And Lu said, well, we've looked at all these --
4 researchers have continuously devised accelerated testing
5 systems of different designs, and they all have adjustable
6 resistance, compliance, amplitude, and cycle rate. Then on
7 page 187 of Lu, it talks about an Iwasaki paper that pointed
8 out that the accelerated tester that it was looking at, that
9 that paper was looking at, lacks the compliance component
04:15PM 10 that tested Jellyfish valve couldn't open.

11 Then it talks about another St. Jude Medical device
12 that was reviewed by Reul and Potthast showed that loading
13 force decreased linearly with increasing compliance.

14 THE COURT: Just a little bit slower, counsel.

04:16PM 15 MR. THOMAS: Southern people are supposed to talk
16 slow. That's what they told me in law school.

17 Lu talks about how there are multiple known
18 accelerated testers with compliance, and compliance chambers
19 and air chambers in the prior art provided the compliance
04:16PM 20 function, and those were in fact known.

21 I do want -- I need to step back for a second and
22 talk about the standard and the quantum of evidence for
23 invalidity.

24 THE COURT: Before you do that, though --

04:16PM 25 MR. THOMAS: Yes, Your Honor.

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1 THE COURT: -- this article and the references that
2 you highlighted just keeps using the term compliance
3 component. Why should I understand that to be equivalent to
4 the excess volume area?

04:17PM 5 MR. THOMAS: So I think what I would say is that Lu
6 also describes -- and I think I have it here -- Lu describes
7 the Xi patent. If you look at slide 12, sort of show that Lu
8 is Exhibit 4. It's written by Xi, Baoshu Xi. There's
9 overlap in the inventors of the Xi patent and the authors of
04:17PM 10 the paper. If you look at the pictures, when they talk about
11 this TH 2200 accelerated tester, they're the same pictures
12 from the Xi patent.

13 And Lu calls it the air chamber. That's in the Xi
14 patent, air chamber 11. Lu calls that a compliance. That's
04:17PM 15 what -- so aside from Dr. Dasi's interpretation of the Lu
16 reference from the perspective of a person of ordinary skill
17 in the art at the time of the invention, in addition to his
18 testimony that says I look at this and I think that this is a
19 compliance chamber, Lu also shows that Xi -- that describes
04:18PM 20 Xi as having a compliance.

21 So it's an air chamber. It's compliance. Put them
22 together; it's a compliance chamber. I think I would not be
23 able to tell you at this point without digging into all of
24 those other articles if every single one of those had an
04:18PM 25 air-filled compliance chamber. But put the fact that you

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1 have this known in the art -- which again, according to BDC's
2 own statement that compliance chambers to provide excess
3 volume areas were known in realtime systems, and then you
4 have this other document talking about other documents that
04:18PM 5 have accelerated testers with compliance, did those all have
6 compliance chambers that provided an excess volume area? I
7 can't tell you that standing here in front of you today, no.

8 But at least Xi does and at least Dynatek does. So
9 we think that that's consistent. Dr. Dasi's testimony and
04:19PM 10 our arguments presenting the references themselves, we think
11 that's consistent with or at least corroborated by the Lu
12 reference.

13 Does that address your question, Your Honor?

14 THE COURT: Yes. Thank you.

04:19PM 15 MR. THOMAS: Okay.

16 On the question about how much evidence do we have
17 to have, we're talking about -- Mr. Tamkin talked about the
18 clear and convincing evidence standard for invalidity at
19 trial. But Federal Circuit cases make clear that the
04:19PM 20 question at this stage is vulnerability.

21 There's a recent case from the District of Delaware
22 where Judge Bryson -- Judge Bryson is one of the Federal
23 Circuit judges who specialized -- appeals from all patent
24 cases go to the Federal Circuit.

04:20PM 25 So the Federal Circuit judges know their patent

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1 law. Judge Bryson was sitting by designation in a case in
2 the District of Delaware. The case is Wahoo Fitness, LLC,
3 versus Zwift, Z-w-i-f-t. That's case 22- CV-1295, District
4 of Delaware.

04:20PM 5 And in an order that's -- ECF 103 is the redacted
6 version filed May 1st -- he denied a preliminary injunction
7 motion even though he believed the plaintiff had shown
8 infringement was likely, had shown that irreparable harm was
9 likely. And he said it was -- Judge Bryson wrote that he
04:20PM 10 believed it was useful, quote, useful to clarify the standard
11 that applies for patent invalidity, end quote, for PI
12 context.

13 He said that the showing of substantial question as
14 to invalidity, dot, dot, dot, requires less proof than the
04:21PM 15 clear and convincing showing necessary to establish
16 invalidity itself. While the patentee does not have the
17 burden to prove validity -- BDC doesn't have to do that
18 here -- quote, the patentee must show that the alleged
19 infringer's defense lacks substantial merit, end quote.

04:21PM 20 So that's really the question here. Have we done
21 enough? We don't have to win our case today, but have we
22 done enough to show that the patent is vulnerable, that maybe
23 the Patent Office got it wrong? Maybe the examiner when he
24 said, gosh, this looks new, nobody has ever done an
04:21PM 25 accelerated tester with a compliance chamber in an excess

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1 volume area.

2 The examiner didn't have these references in front
3 of him. Actually, I'm going to go to slide 14. BDC actually
4 argues that it may be harder to meet the invalidity standard,
04:22PM 5 meet the clear and convincing burden, when the invalidity
6 contention is based on the same argument that the PTO already
7 considered. That's at page 3 of BDC's reply brief.

8 And then it points to the notice of allowance from
9 the examiner saying an excess volume area capable of
04:22PM 10 operating at an accelerated rate was inventive.

11 That case that BDC cites, the paragraph right
12 before that says new evidence not considered by the PTO may
13 carry more weight than evidence previously considered by the
14 PTO and may go further toward sustaining the attacker's
04:22PM 15 unchanging burden.

16 So the defendant at trial still has the burden to
17 prove invalidity, but it's a much different situation when
18 you come forward with new references that the examiner did
19 not have in front of it.

04:23PM 20 That's what we have here today. So it's true, this
21 sort of black-letter law, it is harder to meet the burden
22 when the invalidity contention has already been considered by
23 the PTO. But the much more applicable statement from that
24 case is the one that was left out of the brief. It's that it
04:23PM 25 is maybe easier to sustain the burden when the PTO did not

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1 have all the material facts.

2 THE COURT: I'm sorry. Maybe I'm missing it, but
3 why should I conclude that it didn't have these facts? Why
4 couldn't it be that it had those facts but still considered
04:23PM 5 that the process was inventive?

6 MR. THOMAS: Okay. If you look at the patent
7 itself -- Mr. Tamkin had an illustration of this. But you
8 look at the cover of a patent, the very first page, and you
9 go to this sort of what we call the bibliographic data for a
04:24PM 10 patent.

11 Actually the second page, page 2 of the patent,
12 there's a section called references cited, and there's a
13 whole bunch of patent numbers and a whole bunch of documents.
14 The ones with stars next to them mean that the PTO, the
04:24PM 15 examiner actually, you know -- we call it -- rejected the
16 claims, took an initial position. The government took a
17 position that the claims were invalid over that reference or
18 that it was at least material to the patentability of the
19 references.

04:24PM 20 All these other documents that are cited are other
21 documents that were specifically considered by the examiner.
22 The Dynatek M6 manual is not there. Lu is not there. The
23 Russo document that is -- I believe the Russo document that
24 is cited by Dr. Dasi. That's Exhibit 11 to our brief.
04:25PM 25 That's not cited. The Xi reference not cited.

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1 These are all new. They were not before the
2 examiner. Therefore, again, we still have to satisfy the
3 burden, but that burden is not, quote, harder to meet as BDC
4 argues it is. It's actually a little bit less. That's
04:25PM 5 something that the Court can consider.

6 As the Court in Sciele also said -- and this is not
7 on the slide. That's the case cited on slide 14 -- for
8 example, it could be reasonable to give more weight to new
9 arguments or references that were not explicitly considered
04:25PM 10 by the PTO when determining whether a defendant met its
11 burden of providing clear and convincing evidence of
12 invalidity.

13 And when it talks about the references not
14 explicitly considered by the PTO, that's the ones on the
04:26PM 15 patent and the reference is cited. The references we have
16 asserted as part of our defense here were not in that bunch.

17 So now I want to go specifically to Dynatek. We
18 talked about how their argument was that there was no excess
19 volume area and it's not in fluid communication. So the
04:26PM 20 capacitance tank --

21 THE COURT: Let me stop you just to give you a
22 time. We started at 3:20. You have about 25 minutes left.

23 MR. THOMAS: Okay. Thank you, Your Honor.

24 The capacitance tank -- and this is expressly
04:26PM 25 mentioned in the Dynatek manual -- is used to buffer small

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04:27PM 1 variations in pressure. Buffer variations in pressure, that
2 means it absorbs some pressure. Well, you've got changes in
3 pressure, spikes. And whether it's a big spike or a little
4 spike, it's a change in pressure. And this capacitance tank
5 is expressly described and disclosed as buffering small
6 variations in pressure.

04:27PM 7 The claims don't require it to be a lot of pressure
8 that has to be absorbed. It just says that it's an excess
9 volume area that stores fluid under compression. So how much
10 fluid? The claim doesn't say. That means that the claim is
11 not limited to any specific amount of pressure or any
12 specific amount of volume of fluid.

04:27PM 13 Dynatek says that that's what it does. Dr. Dasi in
14 his declaration at paragraph 67 says that he saw it happen.
15 He saw fluid move in and out of the tank. BDC says in its
16 footnote: Mr. Tamkin said today, well, he doesn't say at
17 what speed it was operating. Was it operating at an
18 accelerated rate?

04:28PM 19 To be frank, looking at the testimony, and I can
20 tell you based -- you know, I didn't ask him that question
21 before we submitted his declaration. But I'd submit to you
22 that the Dynatek M6 tester which BDC argued already was the
23 accelerated tester that was one of the two on the market at
24 the time that BDC came out with its product, it's an
04:28PM 25 accelerated tester.

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1 Dr. Dasi uses lots of these devices all the time.
2 He researches cardiac implants and devices as part of his job
3 as a professor at Georgia Tech. That's what he does, and he
4 says: I saw it happen. So I think it's a very reasonable
04:28PM 5 inference to say that he saw it happen in the normal
6 operation of this accelerated durability tester.

7 THE COURT: But isn't the other argument that the
8 capacitance tank is connected to the -- yeah, go back to
9 that -- to the distribution chamber as opposed to the return
04:29PM 10 chamber?

11 MR. THOMAS: Yes. That is another argument that
12 they make. Dr. Dasi says -- I believe in paragraph 74 he
13 addresses this in fluid communication with a return chamber
14 question, and neither party expressly construed in fluid
04:29PM 15 communication.

16 I think the experts said, well, we both think it
17 means in patent language the plain ordinary meaning of the
18 term. But Dr. Dasi says that that means that fluid needs to
19 be able to flow from one point to the other in the device.

04:29PM 20 So the position on this device, the Dynatek device,
21 is that fluid can go from one place to the other. Where it's
22 connected here at the upper head -- this is where that Tygon
23 tube is connected at the upper head -- it is in fluid
24 communication with the return chamber because fluid flows
04:30PM 25 down through it.

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1 Is it directly connected to the return chamber?
2 No, it is not. We agree. But is it in fluid communication
3 with the return chamber? Yes, it is.

4 Paragraph 74 of the declaration of Dr. Dasi says --
04:30PM 5 oh, and by the way, if you're really talking about that
6 that's the distinction that you want to draw is, well, it's
7 connected up here instead of down here; it's at the
8 distribution chamber side instead of the return chamber
9 side -- Dr. Dasi says, well, fine. That would be obvious to
04:30PM 10 connect it at the other place or to move it to the
11 capacitance tank to be connected to the return chamber
12 because you can do either one. It's a simple substitution of
13 one place and a movement of that part. So he says in his
14 opinion it's obvious.

04:31PM 15 THE COURT: You're saying from a physics
16 perspective it doesn't make any difference whether designed
17 this way or designed as an excess space connected, whether
18 it's on the bottom or the top -- the return chamber or the
19 distribution chamber?

04:31PM 20 Not that I've seen anything in the record that
21 addresses that, but is that essentially what you're saying,
22 that they're --

23 MR. THOMAS: I think that's essentially what I'm
24 saying. I want to be precise that I'm not saying that -- as
04:31PM 25 a matter of physics, I don't know, but I do think that that's

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1 probably subsumed within Dr. Dasi's opinion, that it would be
2 simple enough to move it one place to the other. The experts
3 definitely have some disagreement about what physics allows,
4 right.

04:31PM 5 Mr. Girard says ordinary physics says you can't
6 have this change, have this operation go through the long
7 tube up to the capacitance tank. Dr. Dasi explains why he
8 thinks that that's not right. Because both the document
9 itself says: I'm here. This is what I am doing, is
04:32PM 10 buffering changes in pressure. And because Dr. Dasi says:
11 In my experience I have seen it happen -- by the way, you can
12 look at the capacitance tank.

13 That doesn't -- -- that to me the waves there look
14 like moving water, not still water. That might be a little
04:32PM 15 bit of a stretch. That's just attorney argument I'm going to
16 just concede for you.

17 Dr. Dasi says that the physics works, and then his
18 opinion is that you can move it from one place to the other
19 and it would be okay.

04:32PM 20 I want to talk about the argument that -- before I
21 do that, there was a phrase that I think about -- well, no.
22 We'll just move on.

23 BDC made a lot of arguments about this idea of
24 teaching away. Dynatek teaches away from doing what the
04:33PM 25 patent says because it says to remove all the air. BDC just

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1 stopped whatever, whatever was the instruction, the last one,
2 33 here on the left column. They just stopped. They
3 apparently didn't want you to consider the rest of the
4 instructions because step 41 says open the stopcock, add air.

04:33PM 5 It just -- it's black and white, Your Honor. That
6 is what the reference says to do. In step 45 it says to
7 repressurize the compliance chamber. Oh, by the way, that's
8 the same thing that the '935 patent says: A pressurized gas
9 may be introduced directly into the compliance chambers
04:33PM 10 through access port 25. That's -- back to slide 15. That's
11 the stopcock. That's the capacitance tank.

12 So, no, it's not teaching away from removing all
13 air totally. You can't say that it teaches away from
14 removing -- from using a compliance chamber when it expressly
04:34PM 15 tells you to add air. I'll also throw in just from a patent
16 law perspective this idea of -- this doctrine of teaching
17 away is a tool or an idea that is used to determine whether
18 or not the prior art teaches away from the direction that the
19 claims are going.

04:34PM 20 The law says -- and I can't give you any cases
21 because -- or at least I don't have them handy, but I could
22 if you wanted. The law says that to have teaching away --
23 it's a factual finding -- to have teaching away, it has to
24 disparage or criticize the direction that the patentee
04:34PM 25 ultimately went in. Even if this says remove all the air

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1 from the rest of the system, fine. We remove air -- we
2 remove all the air in the VDT tester as well. Mr. Mouneimne
3 says that, too. That's why that slanted thing at the top.

4 We remove all the air out of the system. We don't
04:35PM 5 want any bubbles in it when the thing is running. But there
6 is other places, the compliance chamber, that does have air.

7 I want to talk about under compression. This idea
8 of -- and that's -- we're going to go to slide 17.

9 Your Honor asked a good question: Well, isn't there, like,
04:35PM 10 pressure in some place? The answer is yes. This idea of net
11 compression that is used in BDC's briefing, that is not in
12 the claims. All the claims say is there's a pressure source
13 and that the fluid is under compression.

14 The only thing that the patent talks about in terms
04:36PM 15 of this pressure and under compression is just you've got the
16 drive. You're pushing the fluid through the device. And
17 there's no dispute. We heard the explanation in the video of
18 how the swashplate thing pushes fluid around in the Dynatek
19 device. There's no dispute that that pressure source pushes
04:36PM 20 fluid through the device, and that's exactly what's happening
21 here and that's exactly what happens in the patent as well.

22 This idea of the seesaw, right, there's no net
23 compression. Well, when you go down to the bottom of the
24 seesaw, you push off with your legs, and that's pressure.

04:36PM 25 Right? It's pressure in one spot; it's not pressure in the

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1 other. But it's pressure where the thing is pushing it up.

2 So that is just a sideshow, and what they're trying
3 to do is to add a limitation. Oh, the whole system has to be
4 under net compression, Your Honor. That's not in the claims,
04:36PM 5 and they're trying to add a limitation or add a requirement
6 to the claims for the purpose of avoiding the prior art, to
7 avoid the invalidity. And that's improper.

8 I'll also point out here on this slide, Exhibit 7,
9 that description we went through earlier: When the drive
04:37PM 10 mechanism in pink pumps more fluid into the system, it
11 increases the pressure in the channel and the volume is
12 displaced into the compliance chambers.

13 That is what is happening -- net compression or no
14 net compression, that's what's happening in the Dynatek
04:37PM 15 device. The swashplate goes up; it pumps fluid into the
16 system; it increases pressure in the channel, and the volume
17 of the fluid is displaced into the capacitance tank or
18 compliance chamber.

19 Now let's talk about the Xi reference. We do --
04:37PM 20 this is an obviousness combination. I don't remember if I
21 said this earlier, but the first partner I worked for, when
22 he would explain obviousness to a client, he would say -- we
23 use these words in patent law -- novel and nonobvious. That
24 doesn't mean anything to a lay person.

04:38PM 25 So what my partner would say is: What's cool about

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1 your invention? What's the invention that's worthy of
2 granting the monopoly right? That's why those two
3 requirements are in the statute, to be novel and nonobvious.

04:38PM 4 As the KSR Supreme Court case explains it is that
5 you look at, quote, the differences between -- well, I've got
6 some bracketed stuff, but -- the differences between the
7 claimed invention and the prior art are such that the claimed
8 invention as a whole would have been obvious at the time the
9 invention was made.

04:38PM 10 And what is really important to note is that that
11 doesn't mean that we have to assemble, that we have to take
12 Xi's features and cram them into Dynatek some way. That's
13 not what it says.

04:39PM 14 By the way, there are cases that say you can
15 assemble elements of the prior art like puzzle pieces if
16 there's a motivation to do so. So you can do that, but the
17 real question is: When you look at the claim, does the prior
18 art suggest all of the elements of the claim arranged in the
19 way that the claim does?

04:39PM 20 As we talked earlier about the Winslow tableau and
21 the person of ordinary skill in the art sitting there looking
22 at all these documents and, gosh, I'm a designer. This is
23 what I do for my job. What am I going to incorporate? Well,
24 we already talked about how that Lu document says you gotta
04:39PM 25 have compliance somewhere or all the testers have compliance.

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1 That's a teaching of including compliance.

2 The Xi patent gives one specific example of
3 including compliance, and it has an air chamber. That's
4 element 11. And it's downstream of the device being tested.

04:40PM

5 We talked -- I think there was some discussion in
6 Mr. Tamkin's argument about the arrows. Those are the
7 direction of the fluid flow. Right.

8 So the valve is being plunged up and down in this
9 device, as Mr. Tamkin said. That's right. And Xi says --

04:40PM

10 this is on page 8 of Xi, which I think is Exhibit 3. Yes,
11 Exhibit 3. It's like the bottom of page 7 of 31, top of
12 page 8, that the liquid is forced down, is, quote, pushing
13 the liquid down, and then end quote. That's the end quote.

14 New quote: Liquid flows into its respective corresponding
15 air chamber.

04:41PM

16 Gosh, that's sound a lot like liquid flowing into
17 an excess volume area, doesn't it, when it's being pushed
18 through the system and then liquid flows into the air
19 chamber? It doesn't say that it flows into some other part
20 of the system. It says it flows into an air chamber. That
21 air chamber is filled with air. You can see it's not really
22 -- it's a little fuzzy in this reproduction of the drawing.
23 But just below the line here at 11, there's these little
24 lines there.

04:41PM

04:41PM

25 I think if you look at the original that's attached

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1 to -- that's filed on the docket, the original exhibit, I
2 think it's a little bit clearer. But that's the liquid,
3 right. So liquid is partway up in this sort of tube stacked
4 on top. I mean, even just visually thinking about this
04:41PM 5 structure compared to how the '935 patent illustrates the
6 compliance chamber, that's a lot alike, Your Honor, and the
7 person of ordinary skill would recognize it that way. Lu
8 recognized it that way and said that it provided compliance.

9 So we submit that the combination of the teachings
04:42PM 10 of Xi and Dynatek would render -- have all of the elements.
11 I'll say if Dynatek does not have a compliance chamber, okay,
12 right -- if it has a compliance chamber, then we're probably
13 winning because of other -- for the reason we talked about
14 before. It anticipates the claims.

04:42PM 15 If it doesn't have a compliance chamber, the person
16 of ordinary skill in the art knows from all the prior art
17 that was out there that compliance is important. So he looks
18 at Dynatek. If he were to do this -- this is not with
19 hindsight. This is relying on what the prior art says, and
04:42PM 20 the prior art said that all accelerated testers had some kind
21 of compliance.

22 You asked which one was it. I don't have to know
23 at this point because what I do know is that Xi has an air
24 chamber and that Lu calls that compliance. Dr. Dasi says: I
04:43PM 25 recognize this as a compliance chamber. That's what it's

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1 doing. It's a compliance chamber just like BDC said was
2 totally, quote, well known in the art for non-accelerated
3 testers. Remember, that's part of the knowledge of the
4 ordinarily skilled artisan as well, that he knows that
04:43PM 5 compliance chambers -- their words, not mine -- that
6 compliance chambers to provide excess volume were well known
7 for realtime testing.

8 So are we to believe that a person of ordinary
9 skill in the art, which is, as the cases call it, a person of
04:43PM 10 ordinary creativity and skill, wouldn't know that an air
11 chamber providing compliance and excess volume couldn't be
12 used in an accelerated system? No. It's right here.

13 Xi is on its face an accelerated tester. This at
14 the very least shows that it's a substantial question as to
04:44PM 15 the validity of the claims, and BDC has not rebutted that
16 substantial question with its own evidence.

17 Just for clarification, Your Honor, you asked about
18 what is element 13 in this figure, this little damper. Xi
19 describes that as a needle valve damper R1. Okay. It's
04:44PM 20 still a little confusing. So then you go and look at Lu on
21 page 191, and Lu says it provides resistance.

22 And so what I would submit to you is that's the
23 same function as the -- as what the '935 patent calls the
24 throttle valve 132. It's a little -- it's a throttle, and
04:45PM 25 you adjust this to be able to adjust the resistance which is

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1 going to affect the pressure or speed or something. I can't
2 exactly talk -- I don't know all of the details, but that's
3 how it was explained to me, is that those dampers or
4 throttles or throttle valve and to adjust the way the device
04:45PM 5 is operating. And it's doing it here in the same way that
6 the '935 patent is.

7 THE COURT: So that's creating a dampening effect
8 by moving that little plunger back to the left, but it
9 doesn't have any other driving mechanism?

04:45PM 10 It's not being propelled to the right. The liquid
11 is pushing up against it and is dampening the flow that way,
12 looks like.

13 MR. THOMAS: The 13 is dampening the flow as it
14 flows down from the air chamber 11 and to the right back
04:46PM 15 towards -- by the way, this over on the right is also an air
16 chamber. So, yeah, it's dampening the flow. That 13
17 element, that's not involved in the driving of the fluid.
18 That's like -- it's a throttle.

19 THE COURT: But that's not part of any of these
04:46PM 20 claims, right? I can ignore that?

21 MR. THOMAS: I don't -- I don't remember. I know
22 it's not in any of the ones in dispute. I wanted to call it
23 out because -- just to answer your question and curiosity
24 about the reference --

04:46PM 25 THE COURT: I appreciate that.

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04:46PM 1 MR. THOMAS: -- number one, but number two, to
2 illustrate that it is talking about things and designing
3 things to control the flow and the pressure in much the same
4 way that the '936 patent did years later. Right. Xi came
5 first, not the '935 patent.

6 BDC also argued that the air chamber -- well, you
7 know what? I want to --

8 THE COURT: You have about five minutes.

9 MR. THOMAS: Yeah. Oh, boy.

04:47PM 10 THE COURT: Counsel, what I'm going to do is we're
11 going to take a break after that, and then I'm going to give
12 each side ten minutes to do a final rebuttal. I know you
13 have much to say, and I don't want to -- I've enjoyed the
14 argument, so I want to hear more from both of you.

04:47PM 15 But we do have to put a stop to it, so we're going
16 to take a break and then we'll give each side ten minutes to
17 do a quick rebuttal.

18 So please finish up, Mr. Thomas.

19 MR. THOMAS: Thank you.

04:47PM 20 Secondary considerations. Mr. Tamkin spent a lot
21 of time on this. All the evidence that he submits, that BDC
22 has provided, that these claims are nonobvious. The Federal
23 Circuit calls this objective evidence of nonobviousness. The
24 problem for BDC is that it is BDC's burden to provide the
04:47PM 25 evidence. And not only to provide the evidence, but it says

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1 in this Fox Factory case on slide 23, the evidence has to be
2 the direct result of unique characteristics of the claimed
3 invention.

4 Just like in the irreparable harm context that
04:47PM 5 we're going to talk about, it's the nexus. There has to be a
6 connection between the two. Our slide 24 shows that -- well,
7 I'm going to go to -- we don't dispute -- the problem with
8 their evidence is that it is not tied to the patented
9 features.

04:48PM 10 Is the VDT-3600 successful? Yes. Is it successful
11 because of the things that we've been arguing about today?
12 There's no evidence of that. None. And it's BDC's burden to
13 provide that evidence; BDC's burden to make that connection.

14 BDC says we've admitted that it's really successful
04:48PM 15 and, oh, my gosh, no. In fact, Mr. Mouneimne's declaration
16 disputes that there is a connection between the success of
17 the product and the patented features.

18 And so I think with -- you talk about copying. The
19 cases show BDC must show, quote, replication of a specific
04:49PM 20 product. That hasn't been done. The service offerings that
21 we're supposedly copying, those aren't tied to the patented
22 features at all. There's no evidence of that.

23 Slide 27, they invested significantly and have
24 widespread industry acclaim from customers. These are
04:49PM 25 generic testimonials. They're praising BDC, sure. We all --

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1 every company likes to put up its brag book of facts. But
2 none of those statements -- and we can even -- I challenge
3 Your Honor to go to the website that they provided. None of
4 those talk specifically about this product or the patent.

04:49PM 5 What they do instead is they actually tout other
6 features. It's other features that they're pitching, which
7 is consistent with what Mr. Mouneimne, ViVistro's president,
8 said. So we don't think that secondary considerations is
9 even an issue because the evidence is plainly insufficient to
04:50PM 10 meet the nexus requirement for this.

11 Irreparable harm has the same nexus requirement,
12 and we heard argument today that there is no nexus
13 requirement for the reputational issues at least that were
14 discussed.

04:50PM 15 I'm going to point Your Honor to Apple v. Samsung,
16 735 F.3d, 1352. The Federal Circuit discussed that Douglas
17 Dynamics case that Mr. Tamkin talked about, and the Federal
18 Circuit specifically rejected the plaintiff's argument that
19 there was no need to show a nexus.

04:50PM 20 The Federal Circuit talked about Douglas Dynamics
21 and how there wasn't any argument about nexus between the
22 reputational harm and the infringement. The Federal Circuit
23 said, quote: There's no indication, dot, dot, dot. The
24 infringers in those cases challenged the existence of a
04:51PM 25 causal nexus.

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1 Well, we have, and there is no evidence here for
2 irreparable harm or for the secondary considerations of
3 nonobviousness.

4 As briefly as I can, I want to touch on the
04:51PM 5 licensing question. We don't dispute that -- having a
6 license, that's true, that it is not like, per se, means you
7 can have damages. But it is important. It's highly
8 relevant. What the cases say is you have to look at what are
9 the relevant differences.

04:51PM 10 The fact of a license, they concede that. There
11 was a license granted. And, yes, it was in the context of a
12 settlement, but it was also after TAI filed an IPR
13 challenging the validity of the claims.

14 What about the identity of the past licensees? BDC
04:51PM 15 characterized TAI in the previous briefing and in its
16 preliminary injunction papers. Look at them side by side.
17 It makes all the same complaints, all of the same cries of
18 irreparable harm against TAI as it does against us now.

19 Third, the experience of the market since the
04:52PM 20 licensees were granted -- I think Mr. Tamkin even said
21 something about you look at the effect. Well, what's the
22 effect of giving a license, of them giving up their
23 exclusivity that they're allowed to have under the patent
24 act? What happened? Nothing. There's no evidence that
04:52PM 25 anything bad happened.

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1 They have an 80 to 85 percent share of the U.S.
2 market according to Dr. Weinberg, so it's a real stretch to
3 say the sky is falling if ViVitro comes in and sells this
4 device, or the sky is falling if TAI comes and sells an
04:52PM 5 infringing device. And then they give a license, and then
6 nothing happens.

7 It's evidence that the irreparable harm is perhaps
8 a fear and not actually tied to what is really going to
9 happen, and they haven't satisfied their burden to do that.

04:53PM 10 Slide 33 we talk about some of the different ways
11 in quotes that they have. In slide 34, BDC argued that TAI
12 became a real threat to the market position price and
13 reputation of the VDT-3600. That was from 2017.

14 What do they say today about TAI? They are no
04:53PM 15 threat. TAI doesn't threaten our share, quote, in any way.
16 But ViVitro, a small company of 10 or so people, 10 to 20
17 people total employed, 10 to 20 employees, they're the real
18 threat. They're the one that's going to take us down.

19 That's not -- that's just exaggeration and bluster,
04:53PM 20 again because they're afraid of the new features that we have
21 in our product.

22 THE COURT: Okay. Thank you, counsel. I'm going
23 to have to stop you there. Let's go off the record.

24 (Off-the-record discussion)

04:54PM 25 THE COURT: So let's talk about whether we can just

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1 do this by Zoom tomorrow. I want to give the parties an
2 opportunity to respond and to close up. The stakes are high.
3 It's important, and I want to do that.

4 Are the parties able tomorrow morning to do it by
04:54PM 5 Zoom? I mean, you're welcome to come here. I'll be here.
6 If you can't, I'm happy to hear from you through Zoom.
7 Again, this is just a wrap-up, 10 or 15 minutes from each
8 side, and we're done.

9 So...

04:54PM 10 MR. TAMKIN: Certainly I'll make that work,
11 Your Honor.

12 THE COURT: Okay.

13 MR. THOMAS: Your Honor, we had planned to fly back
14 to Atlanta tomorrow morning, so we can try to rearrange our
04:55PM 15 flights. Would the Court and BDC be willing to find a time
16 next week, even Monday? I don't know if that's --

17 MR. TAMKIN: Unfortunately I'm in another court on
18 Monday.

19 (Recess taken from 4:55 p.m. until 5:00 p.m.)

05:00PM 20 THE COURT: Let's go back on the record. The Court
21 wants to thank our court reporter and staff for staying late
22 as we finish this up.

23 So I'm going to give, as I said, each side a few
24 minutes to make any brief rebuttal and we'll finish up.

05:00PM 25 Go ahead, Mr. Tamkin.

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1 MR. TAMKIN: Thank you, Your Honor.

2 I think the dialogue that the Court had with
3 Mr. Thomas was interesting. I think it focuses on the extra
4 volume area versus compliance chamber.

05:00PM

5 If we can show Fig. 6, first of all. I thought of
6 an easy way to understand what's going on between all these
7 issues. What is happening in the ViVitro product is they've
8 taken the top compliance chamber there; they've turned it
9 into a balloon or a series of six balloons, but they've
05:01PM 10 turned it into a balloon and just moved it down and put it in
11 the rest of the body.

12 So if you look at their device, it is -- imagine
13 the compliance chamber being a structure that has a rubber --
14 we'll use rubber in this case -- but an elastomeric material,
05:01PM 15 rubber on the top and bottom with some sidewalls. You move
16 it down. Now you have those tubes, that area, whatever you
17 want to call it -- I'm going to call it a balloon -- and
18 that's in the top of their box.

05:01PM

19 They could have designed it perhaps without that,
05:01PM 20 but they chose to put that in. That is the excess volume
21 area. It is also actually a compliance chamber. That is a
22 chamber that exists. It is separated by -- I don't know what
23 the material is -- some elastomeric material.

05:02PM

24 If you look at slide 7, that elastomeric material
05:02PM 25 is specifically called out, I believe. And that's what we

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1 looked at earlier where there's a membrane could be provided
2 between the liquid and the air or other gas, or alternatively
3 a space could be filled with porous foam or other elastomeric
4 material, a balloon. That's what they've done.

05:02PM 5 The chamber, if you will, as defined by my
6 imaginary structure that has rubber on the top and bottom and
7 maybe solid sides, move down. What happens is they drive the
8 fluid and that chamber, that when it's not under compression
9 exists as some sort of balloon or big open space or six
05:03PM 10 tubes, compresses. Inside that, that compresses what goes
11 inside that chamber that has been moved down, if you will, is
12 the fluid. That's what's going on.

13 In fact, if you look at Mr. Girard's declaration --
14 and I don't have a slide on it -- that actually is what he
05:03PM 15 says is happening on -- and that's document 62. On page 16
16 of that document he talks about claim 9, which is a dependent
17 claim. That's the one that says the excess volume area can
18 comprise a compliance chamber.

19 He says that's what's happening. The compressible
05:03PM 20 cavity of the compliance chamber, those annular rings on the
21 outflow side of the valve that are adjacent to the return
22 chamber, and those are getting filled up.

23 To give the example and what's going on here is
24 imagine a bottle of water, bottom of water you open up on an
05:04PM 25 airplane. You drink half of it; you take it down. When you

1 get down, what happens is when you drink it on the airplane,
2 you're under low pressure, lower pressure. You seal it up.

3 You get down and you land, there's higher pressure,
4 and the top of the bottle is going to be compressed. The
05:04PM 5 bottom of the bottle where the fluid, the water, would be
6 isn't compressed, but the bottle itself in the air gets
7 compressed. That's what's happening with these six
8 compliance rings.

9 That's the infringement going on, and that's --
05:04PM 10 Mr. Girard explains that in his declaration. That's the
11 expert. Those are the people of ordinary skill who are
12 explaining the infringement here.

13 Now, there was a long discussion that Your Honor
14 and Mr. Thomas had concerning this IPR or inter partes review
05:05PM 15 of a different patent where there was a reference to we're
16 not talking about material deformation. And we're not
17 talking about material deformation here.

18 We're talking about separating air with a membrane,
19 whatever these tubes are made of. There's air inside those.
05:05PM 20 Just like in that water bottle that has plastic around the
21 outside, there's air in these tubes. What is not happening
22 here is material deformation, rather that air is compressing.
23 That is the difference. This has nothing to do with that
24 IPR.

05:05PM 25 So what it is is the air gets compressed, not any

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1 material. And that's referenced in our brief, of course, but
2 I wanted to point that out because there was a discussion
3 about it.

4 I want to move to invalidity. There was a long
05:06PM 5 discuss about the standard, and I think it's important.
6 Mr. Thomas was referring you to Judge Bryson in a District
7 Court case. The Federal Circuit has opined on this, and
8 that's in the Titan Tire case. In that case the Court said
9 you need to be clear when you're considering a preliminary
05:06PM 10 injunction. The standards are relaxed. It's a likelihood of
11 success, and it's a substantial merits question or
12 substantial invalidity question.

13 You need to take into account the burdens of proof,
14 and that's the important point. It's not that a party can
05:06PM 15 simply raise a question and that creates invalidity. That
16 question has to be substantial as understood by the ultimate
17 burden in the case, which is clear and convincing evidence.
18 That's the point.

19 In terms of the references, we've looked -- there
05:07PM 20 was a lot of discussion about Dynatek. I think -- boy, the
21 easiest of all responses on Dynatek, if we were to look at
22 that reference, I think it's very clear that that tube goes
23 to the wrong part.

24 What you can't do in an invalidity assessment is
05:07PM 25 you can't just pick one or two different things and say, oh,

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1 it has that. It has -- you know, the Xi I'll get to in a
2 second, has an excess volume area, or Dynatek has some area.
3 Well, that area has to anticipate, meaning match every single
4 thing in the claims. And every single thing in the claim
05:07PM 5 requires it to be in fluid communication with the fluid
6 return chamber, not the fluid distribution chamber.

7 You know, I think the counter to that was, well,
8 the expert says, Dr. Dasi says, that you could have moved the
9 tube, but you didn't. And importantly, each of those has
05:08PM 10 meaning. You have to look at every single part of the claim,
11 and it's a whole claim and you have to have all of the
12 pieces.

13 They put it somewhere -- and fluid communication
14 does have its plain and ordinary meaning. But if something
05:08PM 15 is in fluid communication with the pressure source and
16 something is in fluid communication with the excess volume
17 area and something is in fluid communication with the return
18 chamber, you would think those have to communicate, touch
19 each other. And that's all that it means. And that's not
05:08PM 20 what's happening here.

21 And that's not what's happening in the Xi reference
22 either. There wasn't a lot of discussion about this, but the
23 Xi reference, it is -- in the fluid distribution chamber --
24 the fluid distribution chamber is the side that is connected
05:09PM 25 to the pressure source. That's how it's defined in the

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1 claims.

2 The pressure source in Xi is right there. It's the
3 valve, but it's the plunger that is attached to the valve.
4 That's the fluid distribution chamber. That's not the fluid
05:09PM 5 return chamber. So even Xi doesn't anticipate or render it
6 obvious.

7 Now, I know I'm running low on time, so I will be
8 brief about this.

9 Then you get to -- there wasn't a lot of
05:09PM 10 discussion, but there has to be a motivation to combine and
11 there has to be all these references. Now, Mr. Thomas
12 indicated, well, you can just find little pieces and put them
13 all together, if there's a motivation to combine. He at
14 least couched it with that.

05:09PM 15 You can't do that. You need to have -- well, you
16 have to have a reason, and one must reasonably expect it to
17 work and to be solving a problem. And what we're talking
18 about here is should you be combining the Dynatek with the Xi
19 reference.

05:10PM 20 I think it's important to make it clear that we
21 know that Dynatek doesn't have an excess volume area because
22 it doesn't need an excess volume area. And we know that
23 because Dynatek tells us -- this is slide 17, I believe.
24 Dynatek tells us why -- excuse me. It's slide 19 -- tells us
05:10PM 25 why it has that capacitance tank. It is not for handling

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1 pressure generated by the sloshing mechanism or anything like
2 that.

3 An acrylic capacitance tank is used to buffer small
4 variations in the systemic pressure, so pressure overall,
05:10PM 5 which arise from transient small leakage, not from moving the
6 thing around but from leakage and thermal effects. In other
7 words, it's getting hot. It is not to handle the back and
8 forth of any pressure that's created because, as the expert
9 has indicated, there is no overall pressure in this system
05:11PM 10 that you need to address.

11 So that goes to the question: Why would you
12 combine Xi with Dynatek? The answer is you wouldn't. You
13 would not combine those two because Xi does have some sort of
14 compliance chamber. It has that, I agree. It's in the wrong
05:11PM 15 spot, but it has it.

16 But you don't need any sort of compliance in
17 Dynatek. The system just doesn't work that way. So you
18 don't just go find, oh, there is some reference out there
19 with an air chamber and combine it with something that
05:12PM 20 doesn't need an air chamber. And that's what you have to
21 show in order to prove obviousness, and that's not in
22 existence in this case.

23 So I think where I'll conclude is to talk about --
24 oh, the secondary considerations. In the secondary
05:12PM 25 considerations there was a discussion of you need to show

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1 that those secondary considerations relate to the invention.
2 We actually have a case in our brief about that. That's
3 actually the Janssen Products -- this is page 30, the Janssen
4 Products versus Lupin case, which is 109 F. Supp. 3d 650, at
05:12PM 5 671. It specifically noted that in these kind of a context,
6 you don't need a causal nexus when the whole product
7 functions. The whole product functions because of the
8 invention.

9 I do think that some of the -- there are some
05:13PM 10 statements about the excess volume area in BDC's literature,
11 but that's not really the point. The invention only operates
12 if you look at slide 30. The whole system -- you can only
13 drive a system this way where you're creating pressure back
14 and forth and back and forth if you have that excess volume
05:13PM 15 area. The whole thing only works because of that. And when
16 the whole thing only works because of that, that is your
17 causal nexus.

18 Now, I mentioned that it's not all over on the
19 website, and there's a lot of features. That's true. You
05:13PM 20 don't tout a fundamental feature because that's not what
21 anybody is looking for. What they're looking for is what
22 does this do because of how it works.

23 This product, because you are now driving, better
24 mimicking the human physiology, you're able to do so many
05:14PM 25 other things because you have a brand-new way of doing

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1 something. That is allowed in a system where you're driving
2 fluid by having the excess volume area.

3 So that really answers both the secondary
4 considerations of nonobviousness, shows that causal nexus,
05:14PM 5 and it shows the causal nexus with respect to irreparable
6 harm.

7 THE COURT: Okay. I'm going to have to blow the
8 whistle on you. Thank you, Mr. Tamkin.

9 MR. TAMKIN: That's where I was.

05:14PM 10 THE COURT: Let's put Mr. Thomas on a ten-minute
11 clock here and we'll wrap it up.

12 MR. TAMKIN: I should just say -- I'll offer on the
13 record, would it be helpful for the Court to have hard copies
14 of --

05:14PM 15 THE COURT: Yes. I was going to ask both sides to
16 send it. If you have the hard copy, great. If you don't,
17 just send it by e-mail to our courtroom deputy and we'll
18 print it up.

19 MR. TAMKIN: Okay. We'll do that.

05:15PM 20 MR. THOMAS: I'll start with -- I'm going to go --
21 I'll pick and point, place. Janssen Products, just to note,
22 that's a District Court case, not a Federal Circuit case.
23 Federal Circuit is clear that there has to be a nexus.

24 Excess volume area. If you accept the arguments
05:15PM 25 that Mr. Tamkin is making about the excess volume area and

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1 the claim differentiation argument that BDC makes and says,
2 well, because claim 9 says the excess volume area comprises a
3 compliance chamber, that must mean that the excess volume
4 area is something more, something different, then that just
05:15PM 5 helps the invalidity argument.

6 It's a broader claim -- if the excess volume area
7 is broader than a compliance chamber, then that means it's
8 drawing in more things that are susceptible to be used to be
9 able to invalidate the claim, that strengthens the invalidity
05:16PM 10 argument.

11 We just -- Mr. Tamkin just showed the slide where
12 he had the quotation from the Dynatek manual about the
13 capacitance tank buffering systemic pressure. Well, I was a
14 little confused because I thought that BDC's argument was
05:16PM 15 that there was no net compression, that there was no real
16 pressure in the Dynatek system.

17 So which one is it? Does it have a pressure and it
18 needs to be buffered with a capacitance tank, which in our
19 position is a compliance chamber, or is there no systemic
05:16PM 20 pressure? There's none. The Dynatek manual itself says that
21 that's what it's there to do.

22 The fluid communication, about the argument about
23 where is the tube in Dynatek connected, BDC ignores Dasi's
24 sort of first opinion which is that if, you know, point A is
05:17PM 25 in fluid communication with point B and point B is in fluid

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1 communication with point C, then A is in fluid communication
2 with point C.

3 The Ohio River is in fluid communication with the
4 Gulf of Mexico via the Mississippi River. So that's the
05:17PM 5 point we're trying to make in terms of how the connection
6 works.

7 In terms of obviousness, the suggestion is in the
8 art to use compliance chambers. Mr. Tamkin just conceded
9 that Xi has a compliance chamber. Okay. And it's got an air
05:17PM 10 chamber, and the person of ordinary skill in the art knows --
11 and it's in the record and in the evidence from testimony and
12 from old documents -- that compliance chambers absorb
13 pressure. That's what it's there to do.

14 So that is a teaching in the art. That is a
05:17PM 15 motivation. What's really important about this obviousness
16 thing, Mr. Tamkin argued that, well, Dynatek doesn't need it.
17 You've got these little systemic pressure things. We don't
18 need a compliance chamber added to it; so, therefore, we're
19 valid over that.

05:18PM 20 That's not the law. The law doesn't say -- you can
21 actually make the thing function worse. There's Federal
22 Circuit cases that say even if you make the prior art
23 reference or the proposed combination doesn't function as
24 well as the original, then it still might be obvious. It
05:18PM 25 doesn't have to make it better, but we would submit that the

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1 prior art suggests that is it would.

2 Prior art suggests that compliance chambers are
3 useful in accelerated testing. And that is express in
4 multiple prior art references, and it's from the testimony of
05:18PM 5 the -- from our expert.

6 So considering the totality of the teachings and
7 what does the prior art as a whole suggest to the person of
8 ordinary skill in the art, it suggests that the combination
9 would be obvious to arrive at the claimed invention.

05:19PM 10 Something that I forgot to mention in my opening
11 argument, and I'll just say this very quickly. There was a
12 question about Xi is an open system or a closed system.
13 Mr. Girard opined in his opening declaration that Xi was open
14 and therefore there's no need for an excess volume area
05:19PM 15 because the system is just under atmospheric pressure.

16 Dr. Dasi disagrees with that conclusion -- well,
17 let me back up. Mr. Girard's conclusion is entirely
18 conclusory and not entitled to any weight on that point, on
19 that factual question.

05:19PM 20 Dr. Dasi in contrast explains: I disagree with
21 Mr. Girard, and I think that it is a closed system. And it
22 specifically -- the Xi reference talks about how it has good
23 sealing performance. In another place in the document it
24 talks about sealing, and you can find that quoted in
05:20PM 25 Dr. Dasi's declaration.

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1 So Dr. Dasi says it is closed, and therefore it
2 would -- by the reasoning explained by Mr. Tamkin, it would
3 need an excess volume area, and that's what that would do,
4 number one.

05:20PM 5 Number two, Dr. Dasi also says assume for the
6 moment that it is an open system. It still would provide an
7 excess volume area. And for that I'll go to the -- the bowl,
8 the sloshing-water-in-a-bowl analogy that was in BDC's brief.

9 If you push the -- if you push the water -- or
05:20PM 10 maybe it's a cereal bowl. You push the liquid over with a
11 spoon, the liquid rises up. It pushes into the excess area.
12 It flows into an area at the top of the lip of the bowl and
13 before it then sloshes back in the other direction.

14 So even if Mr. Girard was right and that Xi was an
05:21PM 15 open system, which we disagree with, but even if he's right,
16 then Dr. Dasi says: I still see that this would be an excess
17 volume area in the Xi reference, and he explains the reasons
18 why. That's something that Mr. Girard does not do.

19 I want to talk about the elastomeric membrane. The
05:21PM 20 argument that, well, all that ViVitro did is put these rings
21 in the fluid and there's an elastomeric membrane. The
22 quotation that Mr. Tamkin was pointing to on his slide -- I
23 think it was slide 7 -- that quote, if you look at it, it
24 actually says the compliance chamber, not an excess volume
05:21PM 25 area can have a membrane but the compliance chamber can have

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1 a membrane. That membrane would then be the barrier between
2 the compliance chamber or sort of a barrier or a wall between
3 the compliance chamber and the fluid return chamber.

05:22PM 4 Well, where is the excess volume area? The excess
5 volume area comprises the compliance chamber, according to
6 claim 9. And according to the description in the patent, the
7 compliance chamber is actually the thing that provides the
8 excess volume area.

05:22PM 9 So what I would submit is that if you're going to
10 talk about the membrane separating the compliance chamber
11 from the return chamber, then the excess volume area is on
12 the inside. All those illustrations of the fluid flowing up
13 into the compliance chamber, that was all on the inside of
14 the compliance chamber. That's where the excess volume area
05:22PM 15 is according to the illustrations that they have pointed you
16 to today.

17 In our device, looking at Mr. Girard's
18 illustration, the excess volume area is on the outside of
19 what he says is our compliance chamber. Our compliance
05:22PM 20 feature is provided by the compliance rings, but the excess
21 volume area is on the outside. It's on the wrong side of
22 those.

23 There was a comment made about would you reasonably
24 expect it to work if you combined the prior art in a certain
05:23PM 25 way. And, Your Honor, there's no testimony, no evidence that

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1 the patentee had unexpected results. Unexpected results is a
2 term of art in terms of the obviousness analysis, and there's
3 no testimony or evidence about the unexpected results
4 evidence. So that should be disregarded.

05:23PM 5 Your Honor, this Court should let this case proceed
6 in the ordinary fashion. You've heard a lot of stuff about,
7 well, expert one says this; expert two says that. We've made
8 a lot of arguments. There's some claim construction issues.

05:24PM 9 This case -- I naturally disagree with Mr. Tamkin
10 because that's what we are here to do on behalf of our
11 clients, but I really do think that this is the
12 quintessential case where you should let this just get
13 litigated.

05:24PM 14 We'll submit all our expert reports, sort it out in
15 discovery, how do these things actually work, all the
16 different considerations. Should let this case go without an
17 injunction because there's been no clear showing of a right
18 to relief.

05:24PM 19 It's not a clear -- they have a position. We have
20 a position. It's not clear at the very least. We think it's
21 clear that it's not infringed, and we think it's clear that
22 the claims are invalid, but it's certainly not clear in the
23 opposite way in favor of the plaintiff.

05:24PM 24 So for those reasons, you should not block our
25 client from releasing this product. We're trying to bring

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1 something new to the market. And for the Court to put a stop
2 to that before we even launch it on a shaky, at best, showing
3 of a right to relief we think would be incorrect and error.

05:25PM 4 On that point and to the bond question, the purpose
5 of a bond is as insurance against a wrongfully granted
6 injunction. So it's assumed that the Court got it, granted
7 the injunction, and then the Federal Circuit reverses. I'm
8 not saying that that's what you're going to do, Your Honor,
9 but that's the purpose of the bond is to protect the
05:25PM 10 defendant against a wrongfully issued injunction.

11 So that's why the amount needs to be higher,
12 because you've got to set the amount on the assumption that
13 you grant the injunction and then it turns out, no, the
14 appeals court says that that was wrong.

05:25PM 15 The numbers that I think Mr. Tamkin talked about in
16 terms of our profit and that sort of thing, I just want to
17 clarify that we did not introduce any affirmative evidence of
18 what our expected profits would be, you know, financial
19 projections or anything like that. That's not directly in
05:26PM 20 the record.

21 We used an assumption based on the numbers, the
22 sales numbers that BDC provided in its declarations and we
23 just sort of said, okay, you can use that as a proxy. We're
24 so similar and we're competing with each other. Use those
05:26PM 25 numbers as a proxy to sort of come up with what a potential

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1 profitability and therefore lost profitability would be. We
2 weren't representing those as affirmatively our profits.

3 Mr. Harbin, did I leave anything out?

4 MR. HARBIN: Probably, but I'm not --

05:26PM

5 THE COURT: All right. Thank you.

6 MR. THOMAS: I think that's all I have, Your Honor.

05:27PM

7 THE COURT: Thank you, everyone. So the matter
8 will be considered submitted. We'll work promptly to get our
9 order out. I know that time is of the essence, so we will
10 not sit on this. But there are a lot of cases that you have
11 all cited to us that have to be read again.

12 And let me just thank counsel for excellent
13 argument and briefs, and we'll conclude for the day. So
14 we're in recess. Expect our order very soon.

05:27PM

15 All right. Thank you.

16 MR. TAMKIN: Thank you, Your Honor.

17 MR. THOMAS: Thank you, Your Honor.

18 (Proceedings concluded at 5:27 p.m.)
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1 CERTIFICATE

2 I HEREBY CERTIFY THAT THE FOREGOING IS A TRUE AND CORRECT
3 TRANSCRIPT OF THE STENOGRAPHICALLY RECORDED PROCEEDINGS IN
4 THE ABOVE MATTER.

5 FEES CHARGED FOR THIS TRANSCRIPT, LESS ANY CIRCUIT FEE
6 REDUCTION AND/OR DEPOSIT, ARE IN CONFORMANCE WITH THE
7 REGULATIONS OF THE JUDICIAL CONFERENCE OF THE UNITED STATES.

8
9 /s/ Miriam V. Baird

09/06/2023

10 MIRIAM V. BAIRD
11 OFFICIAL REPORTER

DATE

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