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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

ABBOTT LABORATORIES,
Petitioner

v.

MIRACOR MEDICAL SA,
Patent Owner.

IPR2025-00096 (Patent 11,351,356 B2)
IPR2025-00112 (Patent 11,351,357 B2)
IPR2025-00113 (Patent 11,376,415 B2)
IPR2025-00114 (Patent 11,572,879 B2)
IPR2025-00115 (Patent 11,674,517 B2)
IPR2025-00116 (Patent 11,754,077 B1)

Record of Oral Hearing
Held: March 5, 2026

Before ANNETTE R. REIMERS, JAMES A. TARTAL, and JOHN D. HAMANN, *Administrative Patent Judges*.

IPR2025-00096 (Patent 11,351,356 B2)
IPR2025-00112 (Patent 11,351,357 B2)
IPR2025-00113 (Patent 11,376,415 B2)
IPR2025-00114 (Patent 11,572,879 B2)
IPR2025-00115 (Patent 11,674,517 B2)
IPR2025-00116 (Patent 11,754,077 B1)

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The above-entitled matter came on for hearing Thursday, March 5, 2026, commencing at 1:04 p.m. EST, at the U.S. Patent and Trademark Office, 600 Dulany Street, Alexandria, Virginia.

1 P-R-O-C-E-E-D-I-N-G-S

2 1:04 p.m.

3 JUDGE TARTAL: Good afternoon. We are convened for oral
4 arguments in six related inter partes review cases between Abbot
5 Laboratories, Petitioner, and Miracor Medical SA, the Patent Owner.
6 The cases are IPR 2025-00096 concerning US Patent Number
7 11,351,356 B2, IPR 2025-00112 concerning US Patent Number 11,351,357
8 B2, IPR 2025-00113 concerning US Patent Number 11,376,415 B2, IPR
9 2025-00114 concerning US Patent Number 11,572,879 B2, IPR 2025-00115
10 concerning US Patent Number 11,674,517 B2, and IPR 2025-00116
11 concerning US Patent Number 11,754,077 B1.
12 I am Judge Tartal, and I am joined today by Judge Reimers and
13 Judge Hamann who are appearing remotely. Let's begin with appearances
14 for both parties for those who will be arguing today. If anyone else is
15 attending in person or remotely with you today, but will not be speaking,
16 please identify them as well.
17 And we will begin with appearances for Petitioner.
18 MR. BORDER: Good morning, or good afternoon Your
19 Honor. I'm with Counsel for Abbot. I will not be presenting today however,
20 Saranya Raghavan will be delivering the argument as will Nimalka
21 Wickramasekera. And then our LEAP practitioner, Kevin Boyle will also be
22 presenting argument today.

1 And with me also is Chuck Klein from my firm, Winston and
2 Strong.
3 JUDGE TARTAL: Okay. Welcome. And for Patent Owner, if
4 you could do appearances please.
5 MR. CAHILL: Good afternoon. I am Ron Cahill, Lead
6 Counsel for Miracor Medical. I will be arguing today. With me are my
7 partners, Derek Roller and Todd Vare.
8 JUDGE TARTAL: Okay, welcome Counsel.
9 Welcome to everyone to USPTO's Alexandria office. Today's
10 hearing provides an opportunity for Counsel to orally advocate for your
11 positions on patentability of the challenged claims as raised in the petitions.
12 Recording of any PTAB hearing is prohibited.
13 Public access to this hearing has been provided to enable public
14 attendance. It is our understanding that no confidential information is at
15 issue today.
16 Is that correct, Patent Owner?
17 MR. CAHILL: Correct.
18 JUDGE TARTAL: Okay. And Petitioner?
19 MR. BORDER: Correct.
20 JUDGE TARTAL: The court reporter will provide a transcript
21 of the hearing that will become part of the record. We have six related cases
22 being argued together today, and a single transcript of this complete hearing
23 will be entered into the record for each of the six cases.

1 We understand the arguments provided apply to all six cases.
2 However, if you are addressing an issue particular to a specific case, it
3 would be helpful to make that clear on the record.
4 We have the demonstratives as well as the briefs and evidence
5 available to us on our computers. We are aware of Patent Owner's objection
6 to one of Petitioner's demonstratives. We note demonstratives are not
7 evidence and will not be relied upon for the final decision. Patent Owner
8 may address its objection during its argument time, and it will be taken
9 under advisement.
10 We ask that the parties not interrupt each other, and instead to
11 hold the objections regarding the parties argument until it is your time at the
12 podium. To ensure the transcript of this hearing is clear we ask that you
13 speak directly into the microphone when talking, and to identify specific
14 slide numbers and numbers for any figures when referring to any
15 demonstratives.
16 We issued hearing orders in each of the cases at issue. Each
17 party has been granted a total of 90 minutes to present their argument for all
18 six cases. We received Petitioner's request for Kevin Boyle to participate in
19 the oral hearing under Legal Experience and Advancement Program, or
20 LEAP. Accordingly, Petitioner will have an additional 15 minutes of
21 argument time during the oral hearing bringing their total argument time to
22 105 minutes.

1 Petitioner will open the argument and may reserve rebuttal time
2 which may not exceed more than half of Petitioner's total argument time.
3 Patent Owner may the respond to Petitioner's argument and may address any
4 motion to exclude. Patent Owner may reserve surrebuttal time, also not to
5 exceed more than half of Patent Owner's total argument time.
6 We will maintain a clock, and we'll try to provide a warning as
7 we approach the end of your time available for argument. You also have
8 available a timer that includes a light that changes to yellow when you are
9 nearing the end of your time, and to red when you have run out of time.
10 Petitioner, we'll begin with you. Do you wish to reserve any
11 rebuttal time out of your 105 minutes?
12 MS. RAGHAVAN: Your Honor, we'll reserve 70 minutes for
13 opening remarks and 20 minutes for the remaining, including the LEAP time
14 for rebuttal.
15 JUDGE TARTAL: So, we'll begin with 70 minutes.
16 MS. RAGHAVAN: Yes, that's correct.
17 JUDGE TARTAL: Are there any questions from Patent
18 Owner at this time?
19 MR. CAHILL: No, Your Honor.
20 JUDGE TARTAL: And any questions from Petitioner at this
21 time?
22 MS. RAGHAVAN: None, Your Honor.

1 JUDGE TARTAL: Then Petitioner you may begin when you
2 are ready. And sorry to interrupt. If we need to, we'll plan on taking a short
3 break after Petitioner and Patent Owner have provided their initial
4 arguments and before any rebuttal time to give the court reporter a chance to
5 stop. Unless it appears unnecessary.
6 And you can begin when you are ready.
7 MS. RAGHAVAN: Thank you, Your Honor.
8 Good afternoon Your Honors. My name is Saranya Raghavan.
9 I represent the Petitioner, Abbot Laboratories in these six IPRs.
10 To help orient us today, I am going to Slide 2 of our
11 demonstratives which are Exhibit 1054 in the record. And this provides a
12 chart of the six IPRs, the challenged claims, as well as our bases and
13 grounds for challenging those challenged claims.
14 As Your Honors are aware, Petitioner presents four alternative
15 grounds in each of the petitions. And if we turn to the next slide, this slide
16 gives us -- Slide 3 gives us an overview of the various grounds. And what
17 we understand to be the remaining disputed issues that we will be addressing
18 today.
19 Per Your Honor's guidance at the pre-hearing teleconference we
20 will be reserving our arguments for the disputed issues only. But if Your
21 Honor has additional questions relating to other issues, we're happy to
22 address those as well.

1 I will be starting with addressing Ground 2, which is the
2 reference that -- which is the ground that covers Bourque as well as Bourque
3 and the Wampler combination. And my colleague Ms. Wickramasekera will
4 be addressing the remaining grounds, Grounds 1, 3, and 4.
5 So we'll start here with the axially aligned limitation as it
6 pertains to Ground 2. And I will move on to Slide 6 of our demonstratives.
7 Here you can see how the axially aligned limitation is used in
8 the '356 Patent and I will submit that it's used in a similar fashion in the
9 other patents as shown in the limitations on the chart on the right. And so
10 what this limitation pertains to, to give it context here, is that the
11 magnetically driven motor is axially aligned with the inflow tube.
12 If we turn to Slide 7, in the petition, just as a reminder to set
13 some, to set the stage here. Petitioner argued that the inflow subassembly of
14 Bourque, which is shown in the green rectangle on the slide to the image to
15 the left here from the institution decision. And we contended that the inflow
16 sub-assembly is axially aligned with the element labeled the roto, which is in
17 the pink box in the diagram to the left.
18 In the institution decision, at Page 32, the Board acknowledged
19 that the Petitioner pointed to the portion of Bourque's inflow assembly that
20 was after the 90 degree bend that connected into the impeller portion of the
21 pump. But the Board finally held that -- the Board was not convinced on the
22 record that it existed at that time, that that portion was enough to satisfy the
23 axially aligned limitation of the patent.

1 The dispute has evolved a bit since the papers that were
2 exchanged since the institution's decision. And that is the reason why
3 Petitioner wants to revisit this argument at today's hearing.
4 The dispute, as it relates to the parties exchanges has now
5 boiled down to whether the entirety of the inflow subassembly of the
6 Bourque patent needs to be axially aligned in order to meet the claim
7 limitations. Or whether it's enough for just a portion of the inflow
8 subassembly to be axially aligned with the rotor to meet the claim limitation.
9 Petitioner of course contends that the latter is enough. And Patent Owner
10 disagrees.
11 So if we turn to Slide 8. We'll start with the position that
12 Bourque is a centrifugal LVAD. As it says in the title of the Bourque prior
13 art reference, so that's Exhibit 1007, and by definition a centrifugal LVAD
14 provides a 90 degree redirection of the blood such that the inflow is axially
15 aligned with the rotor as shown by the arrows in the diagram on the bottom
16 right. So --
17 JUDGE TARTAL: Counsel, could I just interrupt you for a
18 moment and address the claim language itself? Which, I think may be part
19 of what is helpful to understand your position on. Because I believe shown
20 on Slide 6, the language refers to a driven rotor that is axially aligned with
21 the inflow tube. So is that referring to the inflow tube as a physical structure
22 or to the fluid flowing in the inflow tube?

1 MS. RAGHAVAN: Happy to address that, Your Honor. It is
2 referring to the structure of the inflow tube. And as the institution decision
3 actually pointed out, the flow goes through the inflow tube of course. But
4 we understand that the claims require that the structure be axially aligned.
5 JUDGE TARTAL: And so with your, with regard to your
6 Slide 7, what is the structure in the green box?
7 MS. RAGHAVAN: The structure in the green box is a portion
8 of the inflow subassembly that is connected to the magnetically driven rotor
9 that is shown in pink here.
10 JUDGE TARTAL: Is it the inflow tube?
11 MS. RAGHAVAN: That is the inflow tube.
12 JUDGE TARTAL: And what is your argument as to how that
13 is axially aligned as opposed to the flow within the tube?
14 MS. RAGHAVAN: Sure. So let me jump ahead a few slides to
15 get to that point.
16 So what I was getting to earlier is that a centrifugal pump by
17 definition has an inflow tube that is axially aligned with a rotor. And that is
18 the type of pump that Bourque is. But in addition to that --
19 JUDGE TARTAL: Let me just stop you for a moment. Where
20 is that definition? I thought you said the definition of a centrifugal pump is -
21 -
22 MS. RAGHAVAN: It's understood in the art that a centrifugal
23 pump essentially means that there is a 90 degree redirection from the

1 direction of the blood coming in from the inflow tube, and then it exits out at
2 a 90 degree angle.
3 JUDGE TARTAL: Is the definition in the record that you can
4 refer to or cite actually, so that you're not just relying on attorney argument?
5 MS. RAGHAVAN: Yes. There's --
6 JUDGE TARTAL: And you can get that to me when you --
7 MS. RAGHAVAN: Okay Your Honor.
8 JUDGE TARTAL: With your other stuff.
9 MS. RAGHAVAN: We'll get back to you on that specific cite.
10 And just to orient us again as to the structure of the inflow tube that we're
11 referring to, the portion of the Bourque inflow subassembly that is at issue
12 here is the portion that is show in green from Figure 1a of the Bourque
13 reference.
14 So what Patent Owner seems to be contending is that
15 everything from the suction end of the inflow cannula, followed by the
16 flexible recovery section all the way into the portion that actually extends
17 into the pump essentially needs to be axially aligned in order to meet the
18 limitation.
19 And our understanding is that this claim term as well as any
20 other claim term under Federal Circuit's guidance has to be interpreted in
21 light of the specification, and in light of the embodiments that are disclosed
22 within.

1 So if we look at the Federal Circuit's guidance in GP Lightning
2 Solutions, this is a decision from the Federal Circuit. It's entitled *GP*
3 *Lightning Solutions v. AgiLight Inc.* , and the decision from 2019. It
4 essentially instructs us that claim terms must be interpreted in a way that
5 would not exclude the specifications, only disclosed embodiment.
6 And so as a result of that it would be incorrect to construe
7 claims here in a way that excludes the only disclosed embodiment of an
8 inflow tube as it pertains to the asserted patents.
9 So let's take a look at that only embodiment that is provided in
10 the challenged patents. So if we look at Figure 1, that is shown here on the
11 left-hand side. It's an excerpt of Petitioner's reply from Pages 15 to 16.
12 The inflow tube that's disclosed in the patent is Element 9. It
13 starts off near the triangular shaped element 6, which is the pump that is
14 disclosed in the patent. And then if you follow that line down all the way
15 down to 10, that's the suction end of the tube that's disclosed I the patent.
16 JUDGE TARTAL: You're on Slide 11?
17 MS. RAGHAVAN: Yes, that's correct. And if we draw, for
18 just a matter of reference, if we draw a dotted green line through the pump's
19 central -- what would be the pump's central access, we can see that the
20 inflow tube line is actually curving away.
21 And again, this is the only embodiment of the inflow tube that's
22 disclosed in the patent as Mr. Leschinsky, who is the Patent Owner's expert,

1 has agreed at paragraph 51 of his declaration. He says here, it's true that the
2 '356 Patent discloses just one embodiment.
3 He also agreed in his deposition, which we have a cite here for
4 Exhibit 1040, lines 135 -- column 135 from line 19 through column 136 to
5 line 14. That he did, he agreed with us that the inflow tube is in fact curved.
6 JUDGE REIMERS: Counsel, I have a question for you. Going
7 back to the claim language wherein the magnetically driven rotor's axially
8 aligned with the inflow tube. Is it your position that it only has to be axially
9 aligned with a portion of the inflow tube or with the entirety of the inflow
10 tube?
11 MS. RAGHAVAN: Yes, Your Honor. Our contention is that it
12 only needs to be aligned with a portion of the inflow tube. Because that is
13 what is shown in the -- that is the interpretation that would be consistent
14 with the patent. Doing so --
15 JUDGE REIMERS: Well I have a question for you then. So if
16 we were to interpret this claim to mean that, what claim language do you,
17 would you suggest that would then make it, that it would be with the entire
18 inflow tube? I mean, upon reviewing this claim, how would you interpret it
19 that the entirety of the inflow tube would be there? Would it have to say the
20 entire inflow tube or some claim language similar to that?
21 MS. RAGHAVAN: Well Your Honor, I think that that's a good
22 way of thinking of it in the sense that it doesn't specify whether it's a portion

1 or an entirety. And so it at least has to be construed in a way that doesn't
2 exclude the only embodiment like the Federal Circuit has instructed.
3 So we get to Figure -- if we get to Figure 2, we can see the
4 distinction between what would be an entirety and what would be a portion.
5 And then we can better understand what is actually contemplated by the
6 claims.
7 So if we look at Figure 1, that is the entirety of the inflow tube
8 (9) that is shown in Figure 1. The same inflow tube, a partial aspect of it is
9 shown in Figure 2 of the same patent. These are the same tube. And if we
10 look at Figure 2, that is a cut out of what is represented in Figure 1.
11 And so it would be incorrect to interpret the term axially
12 aligned with the inflow tube in a way that excludes the only embodiment
13 which we contend, the only full embodiment disclosed on the inflow tube (9)
14 is in Figure 1.
15 JUDGE REIMERS: Thank you for that clarification.
16 MS. RAGHAVAN: Of course.
17 So I'm now referring to Slide 13. So taking all of these together
18 and looking at these side by side, it's either correct that Petitioner is -- it's
19 either correct that Petitioner is correct, that Figures 1 and 2 show the same
20 embodiment of inflow tube (9) which means that Patent Owner's
21 interpretation that axially aligned is incorrect. Which means it was incorrect
22 because it would exclude the only disclosed embodiment in the patent.

1 That would again run afoul of the case that we just looked at
2 from GP Lightning. Which again would mean that it would include the
3 curved inflow tube such as the one shown in Figure 1. And then we,
4 Petitioner analogizes the curved inflow tube that's shown in Figure 1 of the
5 patents to the curved or bent inflow tube that's shown in Bourque.
6 And so it's our contention that if Figure 1 can't be excluded
7 from the limitation or the interpretation of axially aligned, and Bourque
8 itself, it's inflow subassembly taken together should be enough to satisfy the
9 claim as well.
10 The other option here is that Patent Owner is correct that Figure
11 2 shows axial alignment. That's what Patent Owner argued in its sur reply at
12 page 13. And again, Figure 2 shows a cut out of inflow tube (9), and yet
13 Patent Owner -- or Patent Owner says Figure 2 is enough to show axial
14 alignment.
15 And so if Patent Owner is correct, that Figure 2 is a different
16 embodiment and therefore we can look at Figure 2 alone to determine
17 whether axial alignment is satisfied then it's analogous to the Bourque
18 situation in which we too are pointing to a portion of the configuration that
19 we highlighted here on the right side of the Bourque image in a red box that
20 shows that a portion of the inflow subassembly of Bourque is in fact axially
21 aligned with the rotor of Bourque.

1 JUDGE TARTAL: Just a reminder. It is very helpful if you
2 say what slide you're referring to because when we look back on the record,
3 you saying the red box it's hard to tell.
4 MS. RAGHAVAN: Sure Your Honor.
5 JUDGE TARTAL: So you're on Slide 14.
6 MS. RAGHAVAN: I appreciate the reminder. I will flag that
7 going forward. We're on Slide 14.
8 And Your Honor, going back you had a question regarding
9 where in the record we had support for a centrifugal pump by definition
10 having an axial inflow tube. And we can find that in Exhibit 1008 which is
11 the Wampler reference at Slide 76.
12 JUDGE TARTAL: Okay. Thank you.
13 MS. RAGHAVAN: I get to next cover our alternative ground
14 under Ground 2 which is that Bourque in view of Wampler teaches the
15 axially aligned term and renders the claim obvious in that way.
16 So now -- oh, sorry. Just to fix it for the record I said Slide 76,
17 but I meant paragraph 76.
18 JUDGE TARTAL: Okay.
19 MS. RAGHAVAN: If we look at Slide 16 now. Here it's made
20 clear from the initial determination that the Patent Owner does not dispute
21 that the limitation is taught by Wampler and instead argues that the only
22 remaining issue is that Wampler cannot be combined with Bourque. And so

1 that is the issue that we will be addressing today. It all comes down to
2 motivation to combine.
3 Patent Owner points to the *Intelligent Biosystems* case in the
4 Federal Circuit which confirms that all that is required for a POSA to have
5 been motivated to combine the teachings from different prior art is to
6 achieve -- is to be able to combine the teachings of the prior art to achieve
7 the claimed invention. And that is going to be critical for us to understand
8 here. And that a POSA would have had a reasonable expectation of success
9 at arriving at that claimed invention. And we submit here that there is
10 substantial evidence in the record to show that.
11 I'll now turn to Slide 17. Here we have excerpts of both the
12 Bourque reference as well as the Wampler reference. And we see here that
13 Bourque describes a pump design for what it calls the HeartMate III, Roman
14 Numeral III. And it describes that there are bottom components from
15 previously existing components, previously existing pumps made by the
16 same company. So HeartMate I and, HeartMate II.
17 And the reason for this is because Kevin Bourque who wrote
18 Exhibit 1007, the prior art reference, was focused on coming up with a new
19 design for the pump. And he thought that it would be, for efficiency
20 reasons, it would be easier to just take the peripheral components that were
21 already in use and FDA approved and on the market in connection with
22 HeartMate I and II, and then just use those inflow and outflow components.
23 And that's how he arrived at the entirety of the system in Bourque 2001.

1 Why I point this out is because then the inflow tube becomes
2 just a design choice. It is a design choice that Mr. Bourque made to use the
3 inflow tube that was already in place or used with HeartMate I or II. It
4 wasn't led by technical necessity.
5 Now if we turn to the Wampler reference on Slide 17. This is
6 Exhibit 1008. Wampler discloses other options or design choices for an
7 inflow tube for example. In fact, Wampler says in the first sentence that a
8 centrifugal design pump allows a considerable amount of flexibility in
9 implantation. So that leaves open the possibility that you could take a pump
10 that is a centrifugal pump by nature, and you could do a lot of different
11 things with it in terms of implantation.
12 Then more specifically in the same paragraph, 76 of Wampler,
13 it says, owing to the axial inflow and radial outflow of the pump, a 90 degree
14 redirection of the blood is affected without the necessity of the flow
15 restrictive elbow fitting.
16 Again this is the paragraph that I was just referring to earlier
17 with regard to the centrifugal pump. But this sentence that I just read
18 necessarily says you can eliminate the elbow that's disclosed in Bourque and
19 not only that, it calls it a flow restrictive elbow. And that's important
20 because it now recognizes some drawbacks that are associated with the
21 elbow in Bourque.
22 So now that we've seen the disclosures in both Bourque and
23 Wampler, I'd like to turn to Slide 18. Here there's a lot of confusion and

1 mischaracterization from the Patent Owner in terms of what Petitioner
2 contends is the motivation to combine.
3 So here I have an excerpt from the petition on pages 80 to 82
4 that says that a POSITA would have been motivated to apply the teachings
5 of Wampler to Bourque. And specifically that says means to eliminate its
6 elbow so that its inflow tube would also serve as the inflow cannula placed
7 into the apex.
8 Again, just to clarify we are saying that the inflow cannula can
9 be made straight. And having eliminated the elbow now that inflow cannula
10 can go directly into the apex of the heart.
11 There is nothing in here in this motivation that says where the
12 pump needs to go. This is specific to the inflow cannula only.
13 And to arrive at this motivation, we provided four different
14 reasons. We said in our reply that Patent Owner fails to rebut all of our
15 independent bases and really focuses in on the fourth reason.
16 And while we agree that they did a cursory treatment of the first
17 three reasons, all of their treatment of the four reasons across the board are
18 based on an incorrect assumption that our motivation to combine requires
19 placement in the apex of the heart of the pump, not just the inflow tube, but
20 the pump as well.
21 Before we get to the four reasons that I just articulated, I would
22 like to address one additional argument that Patent Owner presents. Is that
23 Bourque itself recognizes some benefits to the elbow.

1 So in order to do this they rely on a 2001 publication by Mr.
2 Bourque, well Mr. Bourque is one of the authors and they cite that in their
3 POR at page 28. And here it says in a highlighted sentence that one of the
4 benefits of having a flexible recovery section or an elbow is to decouple the
5 pump from cardiac motion and to provide a point for clamping and ligation
6 for pump explant.
7 The issue with this argument, Your Honors is that the Axonics
8 and Medtronic case from the Federal Circuit says a skilled artisan may be
9 motivated to combine some particular features of different references and to
10 secure some benefits at the expense of others.
11 So while we acknowledge that there may be some benefits
12 acknowledged by Mr. Bourque to the elbow, there are other benefits that
13 we've articulated as part of our motivation to combine to remove the elbow
14 all together. And Your Honors actually found that in the institution decision
15 that we have here on the right-hand side of page 36 to say that Patent Owner
16 did not address then, and it certainly doesn't address now the benefits that --
17 whether those benefits that would have been lost in the asserted
18 combination, or whether a POSA would have understood the benefits of the
19 asserted combination that outweighed any detriments of having to remove
20 the elbow.
21 So just quickly here, we can see here that there are some
22 drawbacks to the elbow that are identified as well. So yes, Patent Owner

1 identifies some reasons to keep the elbow such as the, to provide a point for
2 clamping or ligation for pump explant.
3 But here their expert himself acknowledges that an elbow
4 creates swirling. For example, we cite Exhibit 2015 which is the Leschinsky
5 declaration on Slide 20 from paragraphs 133 to 134.
6 Our expert says something similar. Our surgeon expert Dr.
7 Wieselthaler as we have here on Exhibit 1041 at paragraph 49 says that
8 Bourque's pump's elbow was flow restrictive and causes sheer forces. No
9 only that, eliminating the elbow would cause -- would allow the realization
10 of several other benefits. For example, maintaining blood integrity,
11 minimizing thrombotic and hemorrhaging events, and ensuring safer, longer
12 term circulatory support.
13 So now I'd like to turn Your Honor's attention to Slide 22 of our
14 demonstratives. And here we'll start to address the expectation of success.
15 So Patent Owner argues that Petitioner's motivation to combine
16 requires placement at the apex of the heart. And again, requires placement
17 of the pump at the apex at the heart and that there is no reasonable
18 expectation of success, or no expectation of success at all for placing the
19 proposed combination at the apex of the heart. And Patent Owner provides
20 two reasons for its position.
21 The first is that nobody had ever done that before. Nobody had
22 ever put a pump or an LVAD specifically at the apex of the heart before the
23 priority date of the patents.

1 And the second reason they provide is that proposed
2 combination, which they think is the Bourque 2001 pump, is too big to fit at
3 the apex. But as we'll walk through now, both of those arguments are
4 legally and factually flawed.
5 I'll start with the legal reasonings. So first, as we see here in
6 their POR and in their -- sorry on Slide 23 we see their excerpts from their
7 POR and excerpts from their sur reply that our combination purportedly
8 requires a pump to be placed at the apex and above the diaphragm.
9 And if we turn to Slide 24 we can see here that neither or the
10 claims, nor the Petitioner's combination require the pump to be placed at the
11 apex of the heart. I'd like to direct Your Honor's attention to Claim 1of the
12 '356 Patent. And I submit that the remainder of the challenged claims have
13 similar language.
14 Here on the highlighted section of Claim 1 of the '356 Patent it
15 says, delivering a heart assist pump device to the heart so that a suction end
16 of an inflow tube of the heart assist pump device is inserted into the ventricle
17 of the heart. So all it says is that the suction end of an inflow tube has to be
18 inserted into the ventricle of the heart. There's no mention of the pump
19 being inserted at the apex at all.
20 And then to revisit our motivation to combine, we have that
21 here on Slide 24 as well on the right-hand side from the petition pages 80 to
22 82. Our motivation again is to eliminate the elbow of Bourque 2001 so that
23 the inflow tube would be placed at the ventricle or the apex of the heart.

1 Why is Patent Owner's proposal of requiring the pump to be
2 implanted at the apex of the heart legally flawed is because as I just showed,
3 Claim 1 doesn't require any particular placement of the pump. It doesn't say
4 anything. It's silent about it. The only thing it requires is for the suction end
5 of the inflow tube to be inserted into the ventricle of the term.
6 And the *Axonics v. Medtronic* case that we see on Slide 25 says
7 that the context of the claim matters. So in that claim the Federal Circuit, or
8 in that case the Federal Circuit clarified that the proper inquiry is whether
9 the relevant artisan would be motivated to make the combination to arrive at
10 the claims actual limitations.
11 And there, the Federal Circuit found that a legal framework that
12 required the motivation to combine to apply to what they call the trigeminal-
13 nerve context was improper. Because the trigeminal-nerve context was
14 nowhere to be found in the claims. And the same is true here where the apex
15 of the heart and the pump being placed in the apex of the heart is absent
16 from the claims.
17 Patent Owner seems to acknowledge this fact, that there's no
18 placement or space restriction in the claims because it turns to the *Intelligent*
19 *Biosystems* case. And there the Petitioner's motivation to combine
20 dependent on the ability to meet what they called a quantitative deblocking
21 requirement.
22 And that was the only reason the Petitioner there provided to
23 combine the prior art references. And so the Federal Circuit said because

1 that motivation to combine and include this quantitative deblocking
2 requirement was central to the question of motivation to combine, that was
3 the reason to defeat the motivation to combine in this case.
4 Here we're not saying placement at the apex of the heart is
5 central to the motivation to combine. All we're focused on is the inflow tube
6 being a straight axially aligned inflow tube as we started Ground 2 with.
7 JUDGE TARTAL: Counsel, can I just ask between the two
8 grounds, the one based on Bourque and the one based upon I believe
9 Bourque and Wampler in combination. Are you arguing a difference in
10 claim construction for axially aligned? And is that construction relevant to
11 the motivation for the combination? So in other words, if Bourque teaches
12 what is axially aligned under one proposed definition, which seems to only
13 require some very minimal amount of axial alignment, how does that relate
14 to the argument under Bourque and Wampler that a person of ordinary skill
15 in the art would have had motivation to remove a 90 degree elbow to
16 achieve axial alignment?
17 MS. RAGHAVAN: Sure. So our primary basis under Ground
18 2 is to find a correct interpretation of the term axially aligned. And we're
19 saying the proper interpretation is met by Bourque because a portion of the
20 inflow tube is axially aligned with the tube.
21 When we get to the Bourque and Wampler combination, that
22 interpretation doesn't -- we still believe in that interpretation, we still think

1 that's the correct interpretation. But it's not required because Wampler
2 explicitly discloses a straight inflow tube.
3 If I could point Your Honors to that, it's actually in Figure 5 of
4 Wampler. And it's element 13 which is the elongated inlet tube. So if we go
5 back to Slide 17.
6 I'm referring to the tube that's highlighted here in green.
7 There's no bend. There's no curve to this tube. And Patent Owner doesn't
8 dispute that.
9 And so our combination of Bourque and Wampler doesn't rely
10 in any way on any interpretation of axially aligned. We believe that it's met
11 just on its face.
12 JUDGE TARTAL: Thank you.
13 MS. RAGHAVAN: Okay. Turning next to Slide 26. So the
14 next argument that the Patent Owner makes is that it would be impractically
15 impossible to combine.
16 And what they're looking at here is if you strictly take the
17 teachings of Bourque and Wampler and combine them, would it create a
18 pump that is practically -- does it have a practical, physical way of being
19 implanted.
20 Now Your Honors already found in the institution decision that
21 a bodily incorporation argument is improper under the Axionics v.
22 Medtronic case. And that's what we show here on Slide 27. And we
23 continue to believe that is an improper argument because we think that it --

1 our position is that it's legally improper to require the physical placement of
2 a device and the physical incorporation of a feature to fit in a particular
3 location.
4 And as we'll show in the next few slides, we also have factual
5 reasons as to why it was in fact possible to physically and practically implant
6 that pump. And we have several different options that we've presented in
7 our papers.
8 So with that I'll turn to Slide 29. So this goes to the reasons
9 why Patent Owner is incorrect about their -- factually incorrect about their
10 reasonable expectation to combine Bourque and Wampler as well. So as we
11 see here, there are two different ways that the Bourque and Wampler
12 reference, if combined, could have been implanted in a human. And in fact,
13 were implanted in these ways before the priority date of the patents.
14 That was Patent Owner's first contention was that it was never -
15 - an LVAD was never implanted at the apex of the heart. It couldn't have
16 been implanted. But this slide clearly shows that it's false.
17 On the left-hand side we have option 1 which is the pump could
18 have been put in a preperitoneal pocket. This is exactly what is already
19 disclosed by Bourque. All we're saying is that we would take the teachings
20 from Wampler, take the elbow out, replace it with a straight inflow tube, and
21 implant it just like how the VentrAssist pump was implanted before the
22 priority date of the patent successfully in several patients.

1 On the flip side, you could also implant the proposed
2 combination at the apex of the heart. And that would be similar to what was
3 done with the HeartWare HVAD which is an evolution of the Wampler
4 design as we'll walk through in a little bit.
5 So I want to take a closer look at option 1 which is the
6 VentrAssist device. Here we see on Slide 30, page 2 an image from Exhibit
7 2013 which talks about the VentrAssist device. And you can see here Your
8 Honor, there's an excerpt from Exhibit 2013 as well that says, a cannula
9 attached from the failing left ventricle delivers blood from the heart to the
10 VentrAssist. And it also says that the blood pump that is implanted goes in a
11 small pocket that is created on the left side of the body, below the
12 diaphragm.
13 So again, this is exactly what is already disclosed by the
14 Bourque 2001 patent, or Bourque 2001 reference in terms of where to put
15 the actual pump.
16 And then if we turn back to the figure you see that we've
17 highlighted the or annotated the white tube. That is a straight tube that goes
18 directly from the rotor into the ventricle of the heart. There is no bend.
19 There is no curve. It is an axially aligned inflow tube.
20 Option 2 for placement goes back to the Wampler device or the
21 HeartWare HVAD. And this device as I mentioned earlier can fit at the apex
22 of the heart. Patent Owner does not dispute that Figure 5 shows anatomical

1 placement of such a device at the apex of the heart. That's what they -- they
2 agree that Figure 5 of Wampler shows that.
3 And then in addition to that we have introduced several pieces
4 of evidence into the record as part of our petition and as part of our reply to
5 confirm that that is in fact what was happening when the HeartWare HVAD
6 was implanted.
7 So we see on Slide 31 we see an example of one such piece of
8 evidence. It's Exhibit 1015. The underlying portion of that says that if this
9 pump was appropriate for intrapericardial pump placement. So that
10 basically means that there is pericardium around, a membrane around the
11 heart, and that's where the apex is. So this pump would fit within the apex.
12 This Exhibit 1015 also says that the pump has a short integrated
13 inflow cannula. And again we contend that that means that that is a straight
14 axially aligned inflow tube.
15 So ultimately what this comes down to is that Patent Owner is
16 factually wrong that no LVADs were placed at the apex. We see several
17 excerpts from their expert's declaration. The testimony on Slide 32 of our
18 demonstratives.
19 And they say that this purportedly didn't happen until at least
20 five years after the priority date. And that, as we've seen from the HVAD
21 evidence as well as the VentrAssist evidence which is clearly false.
22 And to make this even more clear we introduced Exhibit 1044
23 along with our reply. And excerpts of that are on page 33. This Exhibit

1 1044 is dated 2006. So a year before the priority date. And it said -- and it
2 talks about the first clinical experience of the HVAD.
3 And if you note here on the very first line of the second excerpt.
4 This is, these are statements made by Dr. Wieselthaler. He wrote -- he is our
5 surgeon expert that put in a declaration about his experience about
6 implanting the HeartWare HVAD well before the priority date of the patent,
7 and what his understandings were about what that device looked like as well.
8 Now faced with this evidence Patent Owner contends that the
9 HeartWare HVAD pump appears nowhere in the four grounds that we've
10 presented in the petition. We submit that that's false.
11 So if we turn to Slide 35 we see here that we're not relying on
12 the HeartWare HVAD as a cited prior art reference for any of our grounds.
13 What we're relying on is evidence of HeartWare HVAD is to support our
14 evidence of reasonable expectation of success.
15 And to be clear, we introduced this evidence because Patent
16 Owner submitted that no one had ever implanted an LVAD at the apex of
17 the heart prior to the priority date. And so to rebut that notion that is
18 factually incorrect we submitted this evidence. It is not a part of our
19 combination. That combination remains Bourque and Wampler.
20 Patent Owner next argues, as we see on Slide 36 that there were
21 no documents evidencing the structure of HeartWare before the priority date.
22 And our response to that is on Slide 37 and we made this point in our reply

1 papers as well, that there's no need for a structure or a picture of the
2 HeartWare HVAD to be displayed in any of these pieces of evidence.
3 Because what is most important is what that pump implanted
4 into the apex of the heart, and did it have a short integrated or straight inflow
5 cannula. And both Exhibit 1015 that we have on Slide 37 and Exhibit 1044
6 which we also have on Slide 37 show that.
7 And so we see the highlighted portions here from 1015. It says
8 the pump has a short integrated inflow cannula, and it is appropriate for
9 intrapericardial pump placement. And then 1044 says something similar
10 where it says the HVAD is implantable in the pericardial space above the
11 diaphragm, and it has an integrated inflow cannula.
12 So if we go to Slide 39 we see here there's a case that we cite
13 from the Federal Circuit. Homeland Housewares v. Whirlpool. It basically
14 says that if we have evidence that is clearly contradicted by the record that
15 was submitted by the other party's expert, then that other party's expert's
16 testimony should be ignored on that point. And that is what we submit is the
17 correct result here as to HeartWare HVAD.
18 And finally Your Honor, with regard to the combination of
19 Bourque and Wampler, we think it is a good way to sum up that Mr.
20 Bourque himself in a 2021 interview, referring to his mindset as of 2006, he
21 himself recognized that he could have made the Bourque 2001 pump
22 smaller.

1 So he says, between 2001 and 2006 when he was referring to
2 what he was thinking of at the time, chips had shrunk. There were
3 advancements in technology that would have inherently allowed anyone a
4 POSA, including Mr. Bourque to make that Bourque 2001 pump smaller.
5 It would have been then optimal to fit in a pocket as it was
6 disclosed to be in the Bourque 2001 reference. But perhaps it could have
7 been placed in the apex of the heart as well.
8 He also says here that when the pump itself is made smaller and
9 you have a little bit more flexibility about where it goes, then he could have
10 perhaps come up with a short integrated cannula like the ones that we've
11 seen used with the HeartWare HVAD pump and the VentrAssist pump.
12 I'm going to turn briefly Your Honors to dependent claims 5
13 and 7. And I'm happy to readdress some points if there are questions about
14 these claim limitations on rebuttal as well. But I just want to save time for
15 the remainder of the grounds as well.
16 Dependent Claim 5 says that the external control unit controls
17 the second magnetic device in response to measurement values indicative of
18 cardiac output of the heart. And if we turn to Slide 43, no 33. We see here
19 that Bourque's external controller controls the pump based on the pump
20 speed.
21 And first of all Your Honor, I would like to note for the record
22 that there is no dispute among the parties that Bourque discloses an external
23 controller. So the dispute for dependent claim 5 comes down to whether

1 there are in fact measurement values disclosed that are indicative of cardiac
2 output.
3 And here we see that Bourque discloses on the left-hand side on
4 page 3, electronics for power and control of the LVAD. So that -- and that
5 resides on a shelf. So that's the external controller. And on the right-hand
6 side also on page 3 we see speed and motor parameters were set and
7 controlled using software. And we submit that the speed is in direct proxy
8 of cardiac output. So therefore it is a measurement value that is indicative of
9 cardiac output.
10 I'll also say that procedurally Petitioner made certain
11 arguments, Petitioner made these arguments as to speed being indicative of
12 cardiac output in its reply on page 27 in response to concerns and purported
13 deficiencies that were raised by Patent Owner in its POR.
14 And Patent Owner did not rebut these positions in its sur reply.
15 So it's our understanding that our expert's opinions and our positions
16 regarding the pump speed being indicative of cardiac output are undisputed
17 at this point.
18 I'll turn now to dependent claim 7. So on Slide 46, dependent
19 claim 7 shows providing feedback signals to the external control unit for one
20 or more sensors.
21 Again, the fact that Bourque has an external control unit is not
22 disputed. So really the only disputed point is whether the feedback signals
23 are provided from one or more sensors. And we see here that there are

1 several examples on Slide 47 as to how Bourque discloses such sensors and
2 sensor providing feedback signals.
3 So on the right-hand side we see Exhibit 1007 at page 3. It says
4 speed and motor parameters. And then we have our expert, Mr. Crosby who
5 opined in his declaration at paragraph 439 that a POSITA would have
6 understood based on the disclosure of the setup, so the calculation is setting
7 the speed and rotor parameters, that those parameters were monitored by a
8 sensor and then provided to the system. So in this case the external
9 controller of Bourque.
10 And if that's not enough, there's also additional disclosure of
11 further sensors in Bourque. And that is on Slide 48. Again at page 3.
12 Bourque refers to flow measurements that were made with an ultrasonic
13 flow probe and also pressure measurements that were made with a solid state
14 catheter type pressure transducers.
15 Again, we may -- we introduce these arguments in response to
16 some concerns raised by Patent Owner in their POR. We introduced these in
17 our reply at page 27 and Patent Owner did not rebut them. So we
18 understand that these points are not disputed.
19 We would also note for dependent claims 5 and 7 that Patent
20 Owner appears to demand more than what the specification itself describes
21 in so far as measurement values that are indicative of cardiac input. But also
22 the sensors that provide such feedback.

1 For example the only disclosure of measurement now used that
2 provide a cardiac output purportedly would be in column 4 of the '356 Patent
3 at lines 36 through 40 which describe that the control unit 5 in the system
4 can be provided fixed values. Now that is exactly what our position is for
5 dependent claim 5.
6 And then as for sensors, it's even -- the patent is even weaker.
7 Because at column 1, line 65 through column 2 line 19 the only disclosure of
8 sensors that is meaningfully detailed appears with regard to a known device.
9 So the patent is describing a device that was known in the prior art.
10 And as for any other sensors it just says, sensors element 4 as it
11 pertains to Figure 4. So we -- it's our position that not only are these issues
12 uncontested as to dependent claims 5 ad 7, Patent Owner's position is also
13 incorrect because they demand more disclosure of the prior art than is
14 actually present in their own specification.
15 JUDGE TARTAL: I'll just say Counsel, I don't think we
16 would share your view that it's uncontested if they don't address it in their
17 sur-reply. I think the fact that it's raised in the Patent Owner Response and
18 that you provide a reply means we'll take into consideration your reply.
19 If your reply is insufficient to overcome what our review is,
20 within our review of the Response, they didn't waive the argument or say it
21 is uncontested just because it's not directly addressed in the sur-reply.
22 MS. RAGHAVAN: Fair enough, Your Honor.

1 JUDGE TARTAL: I understand your point you're making as
2 to whether or not any additional evidence or argument was provided in the
3 surreply.
4 MS. RAGHAVAN: Understood. And with that I will turn it
5 over to my colleague, Ms. Wickramasekera to address the remaining
6 grounds. And I'm happy to address any other questions as to Ground 2.
7 MS. WICKRAMASEKERA: Good afternoon, Your Honors.
8 Nimalka Wickramasekera for Abbot, the Petitioner.
9 I'm going to start with Slide 49. And I'll be covering the
10 remaining grounds, Grounds 1 through 4. I'm going to start with Grounds 1
11 and 3 with respect to the Wampler and the Akamatsu references.
12 And I'm specifically going to start with the axially adjacent and
13 the axially closer limitations. I'm going to address them together and then
14 address the differences between them.
15 The issue between these two grounds, Grounds 1 and 3, is
16 largely the same. The issue is the plain and ordinary meaning of these
17 terms. Now the Petitioner has put in our petition at page 27 our
18 understanding and application of the plain and ordinary meaning.
19 To be clear, we did not construe or propose a construction for
20 these terms because we didn't actually understand there to be any dispute
21 regarding the meaning of these terms based on our understanding of Patent
22 Owner's accusation in the district court. And I'll go through that in a little bit
23 more detail.

1 But in our petition we were clear at page 27 that we understood
2 axially adjacent to mean situated next to each other on the same axis.
3 Essentially no gaps between them on the same axis. That was the
4 understanding that we applied.
5 If we could look at Slide 50 we see the claim language here.
6 The '356 Patent has the axially adjacent language. And then the '357 Patent
7 has the axially closer language. There is combinations of these terms are at
8 issue in all of the patents at issue in these petitions.
9 Now I'd first like to look at what the Board said in the
10 institution decision on the two terms. So for axially adjacent the Board
11 considered Patent Owner's argument that axially adjacent requires that they
12 be adjacent to one another as measured along a central access. And the
13 Board has essentially adopted the Patent Owner's position.
14 I want to be clear here, nothing, none of the claimed
15 components actually sit on the central axis. And so our interpretation in the
16 claim language if you look back at it does not actually say that it needs to be
17 -- these components need to be positioned on the central axis. It doesn't
18 reference the central axis when it says axially adjacent.
19 But we do agree that the understanding within the context of the
20 claims means essentially it needs to be positioned adjacent to one another
21 along a longitudinal access that is parallel to the central axis. Because none
22 of the components actually sit on the central axis.

1 So we understood the institution decision's definition when
2 Your Honor's stated that it should be positioned adjacent to one another as
3 measured along the central axis. We understood that to mean along an axis
4 consistent with the claim language, that these components are situated next
5 to one another or adjacent. And then you would map that to the central
6 access and find their locations. Because physically it's impossible for two
7 physical objects to occupy the same position on an axis.
8 So the issue here is whether Wampler and Akamatsu disclose
9 these limitations under the Patent Owner's of the District Court. We'll also
10 address whether Wampler and Akamatsu disclosed these limitations under
11 the Patent Owner's IPR interpretation.
12 We would like to make clear to Your Honors that they are
13 directly contradicting their positions before the District Court in order to
14 make their invalidity arguments.
15 So here Your Honors, on Slide 53 we have shown you exactly
16 what the Patent Owner has accused of infringements and what the prior art
17 looks like.
18 The prior art closely resembles the accused device in structure
19 and in orientation. All three shown here are having magnets inside a rotor.
20 The HeartMate III which is on the left, the Patent Owner has accused this
21 permanent magnet in a rotor in three separate District Court complaints, and
22 over a dozen infringement contentions.

1 Wampler, which you see in the middle of Slide 53, Patent
2 Owner admits that this is also a magnet housed within the rotor. And for
3 Akamatsu the Patent Owner admits that this is a magnet imbedded in the
4 impeller.
5 So the issue here Your Honors is other axially adjacent includes
6 the overlap that you see here for all three of these devices, or it has to
7 exclude Patent Owner's District Court interpretation. This is a situation
8 where they're taking directly contradictory positions before two different
9 boards.
10 And the Federal Circuit has said this is not appropriate. And
11 this, and the precedential decision in Revvo reiterates this. The directive has
12 just reiterated the point, that a party cannot take inconsistent claim
13 construction positions between two forums. And that's what's happening.
14 Now I want to go into a little bit of detail as to how they have
15 alleged infringement in this case. So to allege infringement, the Patent
16 Owner has asserted that axially adjacent includes components that overlap or
17 occupy the same portion of an axis, the central -- map to the central axis.
18 The accused device as you can see, this closely resembles other
19 prior art LVADs that we've been talking about, that my colleague has
20 explained. It's a third generation centrifugal LVAD with a rotor.
21 Now it rotates, this pink box, the magnetically driven rotor, this
22 rotates together. The entire structure rotates to achieve the purpose of a
23 rotor which is to pump the blood.

1 The accused device closely resembles these other prior art
2 LVADs that we've been talking about and again, the entire rotor here rotates
3 to pump the blood.
4 To allege infringement the Patent Owner has asserted that these
5 components which overlap are axially adjacent. Here is the description of
6 the accused device. The accused device indicates that it has a permanent
7 magnet in the rotor. It's expressed. What has been accused of infringement
8 is a magnet inside the rotor.
9 JUDGE TARTAL: Counsel, if I could just ask you to pause
10 for a moment.
11 MS. WICKRAMASEKERA: Yes.
12 JUDGE TARTAL: Because I think for the panel it's not under
13 consideration or our determination as to what infringes or doesn't infringe.
14 And we're not making rulings for the District Court and we're not basing
15 your challenges on any kind of evaluation of your own product for
16 infringement purposes.
17 So I understand you're perhaps highlighting this to show what
18 Patent Owner might have construed something to mean in District Court, but
19 you seem to be going a bit far afield of what's actually at issue before us,
20 which is your construction, your prior art, how to use it, what the proper
21 interpretation of the claim is. Not whether Patent Owner has made a good
22 accusation or a crazy accusation in District Court.

1 So I guess I would just suggest focusing on what we need to
2 resolve, not just on the context of all of your disputes with the Patent Owner.
3 MS. WICKRAMASEKERA: Thank you Your Honor. The
4 issue here though is this raises a *Revvo* issue. Because there is, they are
5 advancing two different interpretations. But I do want to show how under
6 the interpretation the prior art meets it.
7 JUDGE TARTAL: Is there some interpretation of *Revvo* that
8 Patent Owner loses because of the *Revvo* decision and the positions they've
9 taken? I mean, it's not as though we're going to find in favor of Petitioner
10 because of *Revvo*.
11 MS. WICKRAMASEKERA: So Patent Owner's interpretation
12 in the District Court, and this is part of the reason why we Your Honors,
13 when we saw the Patent Owner' preliminary response we were surprised by
14 it and we requested additional briefing on this particular issue.
15 Because our understanding of the interpretation with respect to
16 axially adjacent was that it could be met by components that, where the
17 magnet is inside the rotor. Because that's what they had accused. That's
18 their interpretation.
19 JUDGE TARTAL: But what is the meaning of the term?
20 You're referring us back again to what they accused in District Court. And
21 that just --
22 MS. WICKRAMASEKERA: Sure.

1 JUDGE TARTAL: -- is unlikely to be the basis for how I
2 construe a claim term. I'm not going to say it means a rotor within a magnet
3 or a magnet within a rotor because that's what Patent Owner said in District
4 Court – allegedly said in one filing.
5 MS. WICKRAMASEKERA: Sure.
6 JUDGE TARTAL: So it's just not the evidence that we're
7 looking at that's going to be the basis of our decision by in large.
8 MS. WICKRAMASEKERA: So I can point you to the prior art
9 and explain how this interpretation maps on the prior art.
10 JUDGE TARTAL: I understand how it maps on the prior art.
11 The question is how is it that that's what that claim language means. It has
12 to be more than an accusation that Petitioner -- excuse me, Patent Owner
13 alleged something in District Court. That cannot be the basis of our claim
14 construction and that alone.
15 MS. WICKRAMASEKERA: So our interpretation is set forth
16 in our petition. In our petition at page 27, we have indicated that axially
17 adjacent means situated next to each other on the same axis. And I'll show
18 you how this plain and ordinary meaning is met by these two prior art
19 references.
20 So we're looking at Slide 58. Okay. As I mentioned, the
21 Board's interpretation included as measured along the central axis.
22 Now as I mentioned, none of these devices have anything
23 actually sitting on the central axis. That's the axis of rotation. The claim

1 language doesn't specify that axially adjacent needs to be along or in
2 reference to the central axis.
3 But we do agree that a logical reading of the claim requires that
4 it be at an axis, longitudinal axis parallel to the central axis. If you take an
5 axis parallel to the central axis. A longitudinal axis parallel to the central
6 axis and you run it through Wampler, you will necessarily have a position
7 where you have an impeller, the magnet, and then the impeller again with no
8 gaps and no spaces between them.
9 So there are axis' that pass through where those components are
10 adjacent. And if you map those to the central axis, they are adjacent, there
11 are no other components next to one another.
12 There is no reference to them actually being on the central axis
13 and none of these devices have anything at the central axis. That's the axis
14 of rotation.
15 But the longitudinal axis, so it requires axially adjacent. It
16 doesn't reference which axis specifically in the claim language. It says
17 axially adjacent. The only other axis that's referenced is the central axis.
18 If you run an axis through this device that passes through both
19 the impeller and the magnet, they are adjacent. They are situated next to one
20 another. That was our understanding frankly when we read their
21 contentions, which is why we did not propose a construction. Because that's
22 consistent with what they were accusing at the District Court.

1 That was the plain and ordinary meaning that we applied, was
2 that if they're situated next to one another along an axis, that meets the
3 axially adjacent limitation.
4 So we applied that to Wampler and Akamatsu. And the same is
5 true. If you pass the longitudinal axis through these devices, these
6 components, you will have an impeller and then the magnet. And there is
7 nothing between them on that axis. And that is the way we applied the plain
8 and ordinary meaning.
9 Does Your Honor have a question?
10 JUDGE TARTAL: No. Thank you for your explanation.
11 MS. WICKRAMASEKERA: Okay. So Your Honor it is not
12 simply that we're saying that the Patent Owner is wrong. What we're saying
13 is, we applied what we understood to be the plain and ordinary meaning. It's
14 consistent with the way they read it at the District Court.
15 But now there's an argument that it can't be adjacent if the
16 magnet is inside the rotor. But that can't be the correct construction because
17 nothing is sitting on a central axis. You have to look at an axis that passes
18 through these components and see, are they situated next to one another
19 along that axis.
20 That is the correct construction. It is consistent with their
21 position at the District Court, and it is expressly what is taught in these prior
22 art references.
23 JUDGE HAMANN: Counsel?

1 MS. WICKRAMASEKERA: Yes.
2 JUDGE HAMANN: This is Judge Hamann. It needs to be
3 reiterated the point that's already been raised. I think when you mean
4 construction, I understand pointing to what Patent Owner said before may
5 you know, allow us to put some weight as to how credible one of the
6 argument's Patent Owner's making are, and to be specific contradictory.
7 But again, you know claim construction has been something
8 that's sort of first principles to go to the intrinsic record more than anything
9 else obviously. So I think that's what the focus is. So we're trying to you
10 know, go back to that focus.
11 And I recognize that you've talked about some of that. But
12 there's also, I think an awful lot put on things that are beyond intrinsic
13 evidence.
14 MS. WICKRAMASEKERA: Thank you Your Honor. We
15 were following I think the guidance from the recent decision in *Revvo*
16 regarding taking two different claim construction positions in different
17 forms.
18 As I mentioned, our view of the plain and ordinary meaning is
19 that axially adjacent requires the components be situated next to one another
20 on an axis. And that was our understanding consistent with the positions
21 that the Patent Owner was taking as well as with our understanding of the
22 prior art. And that was the understanding that we applied in our petition at
23 page 27.

1 And so we --
2 JUDGE HAMANN: And --
3 MS. WICKRAMASEKERA: Yes, sir.
4 JUDGE HAMANN: This is Judge Hamann. And I assume also
5 consistent with the specification in the other intrinsic record.
6 MS. WICKRAMASEKERA: Yes, sir. That's right.
7 JUDGE HAMANN: I mean, that's obviously I think the focus
8 and to be consistent with *Revvo* as applicabile. You know, it's still, we still
9 need to look at obviously how to construe something in you know, in view
10 of the canons of construction.
11 Which again, intrinsic record is you know, first most in that.
12 MS. WICKRAMASEKERA: Yes. Absolutely Your Honor.
13 And that is the reason why I wanted to focus on the claim language itself.
14 Axially adjacent within the context of that claim.
15 It requires that the components be situated next to one another
16 along an axis. And that's the way we applied the construction. And what we
17 were addressing was Patent Owner's argument that that can't be met when
18 you have a magnet inside a rotor.
19 But that absolutely can be met when you have a magnet inside a
20 rotor. It's consistent with what they'd done at the District Court. It's
21 consistent with the claim language, and it's consistent with the prior art.

1 The prior art describes structures where you have the magnet
2 and the impeller adjacent one another along an axis which is what axially
3 adjacent requires.
4 So looking at Slide 59 now, and axially closer presents a similar
5 issue. In comparing this to our understanding of the application of the plain
6 and ordinary meaning that the Patent Owner has advanced at the District
7 Court is consistent with our understanding as well.
8 So their argument here is that you can't have axially closer
9 where the magnet is within the rotor. It's the same argument that they're
10 making with axially closer and axially adjacent.
11 And our understanding is that you can look at a portion of it.
12 Now in the institution decision, and I think I'll move forward. In the
13 institution decision Your Honors noted that one question -- sorry, I'll jump
14 back to the right slide.
15 In the institution decision Your Honors noted that you would
16 like further development of whether it's a portion or whether it needs to be
17 the entire structure. And I think here they were, the Patent Owner is clear as
18 well. Both sides agreed it can be a portion. And so we'll adjust what portion
19 it is.
20 I think this is a question that was asked as well of my colleague
21 with respect to another component earlier in the claims. But both sides
22 agree that it's a portion that you look at.

1 And then the next thing I want to address is -- that's slide, let
2 me jump back to the slides. Here we go.
3 So just to jump back to the axially adjacent. To the extent that I
4 didn't explain this already. The Patent Owner has agreed that touching or
5 sharing a common side, this is Slide 61. That touching or sharing a common
6 side would meet the limitations of axially adjacent.
7 If you look at the central axis, if you take Slide 61, if you look
8 at the image where the central axis is. If you take an axis that's parallel to
9 that axis, a longitudinal axis that's parallel to that axis that actually passes
10 through the components you will see that along that axis the impeller and the
11 permanent magnet are adjacent one another. There are no gaps. They are
12 situated next to one another.
13 That's what the claim language requires. And that claim
14 language is met with Wampler.
15 JUDGE TARTAL: Counsel?
16 MS. WICKRAMASEKERA: Yes.
17 JUDGE TARTAL: Just one thing I was sort of thinking back
18 to and wanted to ask.
19 MS. WICKRAMASEKERA: Sure.
20 JUDGE TARTAL: And this was raised in these petitions I
21 believe. There's a reference in the petition to Patent Owner's "apparent
22 claim constructions" offered in the parallel proceeding that differ from the
23 plain and ordinary meanings in the context of the '356 Patent. This was in

1 the IPR 2025-00096. Do you know what claim constructions you were
2 referring to there?
3 What terms were you asserting in the petition that were
4 apparent constructions by Patent Owner that are different from the plain and
5 ordinary meaning?
6 MS. WICKRAMASEKERA: I think our position is that the
7 Patent Owner's response differs from the plain and ordinary meaning.
8 JUDGE TARTAL: Well this was before Patent Owner's
9 response because it would have been in the institution decision where it was
10 raised.
11 MS. WICKRAMASEKERA: In which petition? In the --
12 JUDGE TARTAL: In the IPR 2025-00096.
13 MS. WICKRAMASEKERA: I won't --
14 JUDGE TARTAL: I guess my question, to be more particular
15 about it. It wasn't sort of esoteric, but were there assertions in the petition
16 that Patent Owner's construction of axially adjacent was not the plain and
17 ordinary meaning?
18 And let me rephrase that. Patent Owner's "apparent
19 construction" of axially adjacent in the parallel proceeding differed from the
20 plain and ordinary meaning.
21 MS. WICKRAMASEKERA: In the parallel proceeding? I
22 don't believe so. I'd have to confirm the portion that you're looking at. But I
23 believe that the -- we believe that the current construction is as we stated.

1 Situated next to one another along an axis. To the extent that Patent Owner
2 is interpreting -- for example, the Patent Owner has said that they are only
3 pointing to a bottom portion of the rotor.
4 To the extent that they are trying to -- Your Honor, I would
5 have to come back to you on that one.
6 JUDGE TARTAL: Sure.
7 MS. WICKRAMASEKERA: I don't remember exactly which
8 point we were making, or if that was a misstatement in the statement at that
9 point.
10 JUDGE TARTAL: So if you can, definitely respond later as
11 well as in reply. But I believe that's what you said in each of the petitions,
12 and in IPR 2025-00096 under claim construction. And it says broadly,
13 Patent Owner's apparent parallel litigation construction's differ from the
14 plain and ordinary meanings in the context of the '356 Patent.
15 MS. WICKRAMASEKERA: Yes, Your Honor.
16 JUDGE TARTAL: But you don't say what constructions
17 you're referring to.
18 MS. WICKRAMASEKERA: No. Yes, Your Honor. Actually
19 that does not relate to the axially adjacent. That's why Your Honor I was
20 confused. That refers to two other terms, the magneto coupling and the, by
21 the blood flowing.
22 JUDGE TARTAL: Okay.

1 MS. WICKRAMASEKERA: So those were -- those we
2 addressed specifically in the claim construction. I apologize, Your Honor. I
3 got confused as to which terms.
4 We specifically didn't raise that as to axially adjacent because
5 we didn't know there was a dispute regarding the understanding of axially
6 adjacent.
7 JUDGE TARTAL: Understood.
8 MS. WICKRAMASEKERA: Yes. I apologize, Your Honor.
9 JUDGE TARTAL: Thank you.
10 MS. WICKRAMASEKERA: So Your Honor, just to, now to
11 move to axially closer for the Wampler reference at Slide 62.
12 Again I apologize, Your Honor. I got a little bit confused there.
13 I need to remind myself.
14 Okay. So we addressed the axially adjacent limitation for the
15 Wampler reference. I'm now going to address the axially closer limitation
16 for the Wampler reference.
17 This is met under any construction, but the Patent Owner
18 statements in the POR confirm that our interpretation is correct. So first, one
19 of the things Your Honor said you would like further development of in the
20 institution decision was whether axially closer refers to the entire component
21 or can be a portion of the component.

1 Now we both agree that it can be a portion of the component.
2 However what we have done is look at the component as a whole in light of
3 its claim language.
4 So the claim language requires, pardon me. The claim language
5 requires, at Slide 50 -- the claim language requires at Slide 50 that the
6 second magnetic device must be positioned axially closer to the first
7 magnetic device onto the magnetically driven rotor as to provide a magneto
8 coupling with the first magnetic device to drive rotation of the magnetically
9 driven rotor.
10 So it says that it needs to be positioned axially closer to achieve
11 a purpose. What we did was look at the claim language as a whole. We
12 understand that it's a portion. We agree with the Patent Owner that a
13 portion, it only needs to be a portion.
14 But what we have done is, if we jump back to Slide 62 please.
15 What we look at is the rotor component as a whole. Patent Owner looks at a
16 very small portion of the rotor to determine whether it is axially closer to the
17 second magnet which is the motor in blue on Slide 62. The first magnetic
18 device is the purple part 88 at the top.
19 So what we do is we look at the impeller as a whole, the rotor
20 as a whole. The vast majority of that rotor. So we both agree it can be a
21 portion. But we look at the vast majority of that rotor as spaced apart to a
22 greater distance from the motor that is the first magnetic device. And we
23 think that's consistent with the content of the claim language.

1 And so then to move to axially adjacent for the Akamatsu
2 reference which is Ground 3. As I've already explained, when you take a
3 longitudinal axis that's parallel to the central axis, and you pass it through
4 both the rotor and the permanent magnet you will find that they are situated
5 next to each other along that axis.
6 As you can see in Figure 2 of Akamatsu on Slide 63, obviously
7 nothing is sitting on the central axis. You need to pass an axis through.
8 That's all axially aligned requires. You pass the axis through that's parallel
9 to the central axis, and you have rotor and then magnet. No gaps, no space.
10 They are next to one another. Because two objects, two physical objects
11 cannot occupy the same space along the same axis.
12 And this is consistent with Patent Owner's expert's admission
13 that they are touching. And it's consistent with Patent Owner's response.
14 And now I'm going to cover -- well, I don't have much time to
15 cover the remaining limitations. I will, unless Your Honors have any
16 questions. The only thing that I would like to say regarding the remaining
17 limitations is as to Ground 3 Akamatsu, the primary dispute is whether it's
18 inserted into the ventricle of the heart.
19 Patent Owner argues that it's, it needs to be in a human. The
20 claims don't require that. The claims -- the insertion of the suction end of
21 the inflow tube into the ventricle of a sheep satisfies the limitations of the
22 claims.

1 Arguing that it needs to be in a human body is outside the scope
2 of the claims. There's nothing in the claims that says patent or human.
3 As to Wampler, we are not -- Ground 1 -- we are not mixing
4 embodiments. Wampler expressly teaches that the features of Figures 1
5 through 8 can be incorporated into the features of Figures 11 through I
6 believe it's 18.
7 We rely on the second embodiment in Wampler, and we rely
8 only on the teachings, the general teachings of the external controller and
9 insertion of the suction end of the inflow tube into the ventricle of the heart
10 which is depicted in Figure 5. But Wampler itself expressly states that you
11 can use these features interchangeably.
12 And then as to Ground 4, the disputes are very limited, but as to
13 Ground 4 I just want to point out that this one is under the narrower
14 constructions that were proposed for magneto coupling and for by the blood
15 flowing.
16 And so if you adopt the constructions that were adopted in the
17 institution decision, the patents are invalid under all grounds, if you were to
18 adopt the narrower constructions for magneto coupling and by the blood
19 flowing that we proposed in the petition, they are invalid under Ground 4.
20 JUDGE TARTAL: And then Counsel, I notice that Mr. Boyle
21 has been identified as providing argument.
22 MS. WICKRAMASEKERA: Yes, sir.
23 JUDGE TARTAL: Correct?

1 MS. WICKRAMASEKERA: We were going to save that for
2 the rebuttal period.
3 JUDGE TARTAL: Okay. So then I think you went over by a
4 minute or so of your 70 minutes. So that will provide something on the
5 order of 35 minutes for rebuttal.
6 MS. WICKRAMASEKERA: Yes. Thank you.
7 MR. CAHILL: Yes, Your Honor. Ron Cahill for the Patent Owner,
8 and I would like to reserve 15 minutes.
9 JUDGE TARTAL: Okay. So you'll begin with 75 minutes of primary
10 argument time, and you'll see the indicator on the clock when you are
11 approaching the 75-minute mark. And you're welcome to begin when you're
12 ready.
13 MR. CAHILL: Thank you, Your Honors, and thank you for hearing
14 from us today. We're going to take the rounds in order. We'll start with
15 ground 1 and Wampler. And so could we go to slide 5? Let's jump right
16 into the merits. So axially adjacent and axially closer. We want to talk for a
17 minute about why this matters. And we have up the petitioner's markup of
18 Wampler. And they've described the red or pink portion that that is the
19 magnetically-driven rotor.
20 Now, Wampler says that his rotor is the impeller portion plus the
21 spindle that extends out from it. But Petitioner has been quite clear that the
22 magnetically-driven rotor of the claims corresponds to that impeller portion.
23 And the impeller is driven by two stators, one above and one below, below

1 being more to the right away from us. And you can see that there are stators
2 there labeled number 91. And we think that axially adjacent and axially
3 closer have to do with that relationship. The second magnetic device -- the
4 first magnetic device, which here is uncolored, it's white, and the rotor.
5 And the magnets here are embedded inside the magnetically-driven
6 rotor, and they're flush with the ends. And so if the proper claim
7 construction is adjacent or next to each other in the axial direction, then
8 there's no way that this can meet that limitation. Because they're not next to
9 each other in the axial direction. A lot of what I thought I heard Petitioner
10 saying was, well, they're next to each other in the lateral direction. They
11 share a common line. If you move an axis someplace else, they can be next
12 to each other. But they're laterally adjacent. They're not axially adjacent.
13 And the Board got this right in the institution decision. So here is, for
14 the purposes of this decision, at a position axially adjacent. And it's the
15 magnetically-driven rotor and the first magnetic device that need to be
16 axially adjacent. They're adjacent to one another as measured along a
17 central axis. That's sensible. It's plain and ordinary.
18 Can we go to slide 7. So in the institution decision, the Board also
19 looked at the plain and ordinary meaning, looked at the intrinsic evidence,
20 and disputed the petitioner's claims that we had taken a different claim
21 construction position in the District Court. Now, mind you, there hasn't
22 been a claim construction in the District Court yet. We have provided
23 contentions. They are in the charts. We're going to get to those. But there

1 hasn't been a claim construction yet. We haven't exchanged claim
2 construction positions. But, here, this is the intrinsic evidence for what
3 axially adjacent means.
4 In this figure, number 18 is the rotor, and number 16 is the first
5 magnetic device. And they're next to each other in the axial direction.
6 Exactly what you think axially adjacent means. Now, there doesn't seem to
7 be any doubt what the plain and ordinary meaning is and what the intrinsic
8 evidence shows. So we think there's no reason to depart from the claim
9 construction that's in the institution decision.
10 Can we go to slide 8 and look at axially closer. So the second
11 magnetic device, and that's the stator that we looked at before. According to
12 the claims, it has to be axially closer to the first magnetic device than the
13 magnetically-driven rotor. So the stator has to be closer to the first magnet
14 than to the rotor. But, in Wampler, they're coincidental. We looked at it
15 earlier. When you look -- can you pull up there slide 62?
16 Right. So the petitioners use this slide. And you can see the stator is
17 number 91, and so it's all the way at the right-hand side, the bottom of the
18 pump, if you will. And the first magnetic device is in purple. And the rotor
19 is partially colored pink or red. There's a portion of it above the magnet, but
20 it's not cross-sectioned, so it's not colored here. There's actually a blade
21 there. But the bottom of the rotor and the bottom of the magnet, they're
22 coincidental. They're the same. So, the stator, the second magnetic device,
23 isn't axially closer to one than another. They're the same distance.

1 Now, you know, they say, well, it curves, and it's off the axis.
2 Closeness is generally measured by the closest point. If I were to ask how
3 close am I to the left wall, I'd look straight to the left wall, and that's how
4 close I am. I wouldn't pick a spot up in the corner and say, that's how close I
5 am. Both the magnet and the rotor pass over that stator coil, the second
6 magnetic device. And one of them is not closer than the other. The claims
7 require that the first magnetic device be closer.
8 So can we go back to Figure 2 of the Miracor patent. There we go.
9 So here, the second magnetic device is number 19. And it is closer to the
10 first magnetic device number 16 than it is to the magnetically-driven rotor
11 number 18 in the axial direction. The two magnetic devices are close to
12 each other, the rotors are farther away. That's exactly what the claim
13 language means.
14 Now, I do feel like I need to spend a little time talking about the
15 District Court positions, and how they're not inconsistent with this. Can we
16 go to slide 9. So in the petition, the petitioner did rely on our infringement
17 charts when determining the meaning of this claim. But what it looked at
18 was a figure that looks like this. And we can pull it up if we need to. It's
19 Exhibit 1019 on page 7, but it's this chart. And what it shows, and in that
20 chart we are discussing the axially adjacent claim language, and this is how
21 we're saying that it's met.
22 And the first magnetic device points to a magnet and the second
23 magnetic -- I'm sorry, the magnetically-driven rotor points to the blades, the

1 impeller, that drive the blood. So the magnetically-driven rotor, the blades
2 that drive the blood, just like the petitioners argue, Wampler does. That the
3 magnetically-driven rotor is the impeller portion that drives the blood.
4 That's on the bottom, and then the magnet is attached above it.
5 And yes, the whole thing rotates together. The first magnetic device
6 is attached, it's fixed to the magnetically-driven rotor. Of course it all spins.
7 That's how it works. But we picked out these things and pointed out that
8 they are axially adjacent. They're next to each other in the axial direction.
9 And that's what they pointed to in their petition. So what changed? So they
10 showed you a figure from -- let's pull it up, their slide 55.
11 Okay. So this is in fact a figure, it's one half of a figure, from one
12 page in an infringement chart, page 20, from a different infringement chart
13 than the one they cited in the petition. And I apologize. I posit to you that
14 that arrow is an error. And here's how I know that. So can we pull up
15 Exhibit 1036? Okay. Could you go to page 5?
16 Okay. So this is that same infringement chart. And this is page 5.
17 And this is the portion, and this is all referred to in our surreply responding
18 the petitioner is making this argument for the first time in their reply. This is
19 the language that says the magnetically-driven rotor rigidly coupled and
20 axially adjacent to a first magnetic device. And lo and behold, there they
21 are. The first magnetic-device points to the magnet, and the magnetically-
22 driven rotor points to the impeller section with the blades that drive the

1 blood below it, completely consistent with everything we have said in this
2 proceeding.
3 And so this is the exhibit that they cite, saying we get it wrong, we do
4 it differently. And it's exactly the same. And it's exactly the same a lot.
5 Could we look at page 6 of this exhibit? So there's page 6. And there it is
6 again, the first magnetic device in the magnetically-driven rotor, axially
7 adjacent. Could we go to page 7? There we have it again, the first magnetic
8 device and the magnetically-driven rotor. And in fact, you can see how the
9 first magnetic device is axially closer to the second magnetic device than the
10 magnetically-driven rotor is in this case. Let's look at page 8.
11 JUDGE TARTAL: And you're still on what exhibit?
12 MR. CAHILL: This is Exhibit Number 1036 in the '096 IPR.
13 JUDGE TARTAL: Thank you.
14 MR. CAHILL: And this is cited by the petitioners as proof that we
15 are inconsistent. Let's look at page 9. So here it is again with a different
16 picture. But again, the first magnetic device is where the magnet is, and the
17 magnetically-driven rotor is the bottom where the impeller blades are.
18 Let's look at page 10. Here it is again. The magnetically-driven rotor
19 is where the impeller blades are on the bottom. We could do this all day.
20 We have dozens of these charts and they all look like this. So they managed
21 to find one that had the arrow in the wrong place and they made an entire
22 argument about it. That one with the arrow in the wrong place, that's not a

1 claim construction conclusion. That one just has the arrow in the wrong
2 place.
3 So the punchline is -- can we go to slide 11. So Wampler does not
4 teach or suggest the claim language. It does not teach or suggest a first
5 magnetic device, the magnets, which are white here, that is axially adjacent.
6 It's adjacent in the axial direction to the rotor, which here, the magnetically-
7 driven rotor is the impeller portion of Wampler.
8 So our position is the Board got this exactly right in the institution
9 decision, and none of the things that have happened since have really
10 changed it. The plain and ordinary meaning, the intrinsic evidence, informs
11 the construction, and Wampler doesn't meet it.
12 Can we go to slide 12? So again, for axially closer, it's the second
13 magnetic device, which is the stators marked at 91. To meet the claims, the
14 first magnetic device, which is white here, the numbers 88, needs to be
15 axially closer to the stators than the magnetically-driven rotor, which is pink
16 here. And it's not. They're coincidental. They are the exact same closeness.
17 One is not closer than the other. So this is a different configuration than
18 what the claims ask for.
19 And again, our position is the Board got this exactly right in the
20 institution decisions. So axially closer appears in different IPRs than the
21 '096, and we've cited some of them here.
22 So let's continue with Wampler. In particular, can we go to slide 13.
23 So the teachings of Wampler, because this is -- they can prevaricate all they

1 want. This is the basis of the motivation to combine. So Wampler has two
2 distinct embodiments. The first embodiment, shown in Figure 3 -- and the
3 Board in the institution decision puts these two figures next to each other to
4 identify the first and second embodiments of Wampler.
5 The first embodiment, shown in Figure 3 here, Wampler says that it
6 has good anatomic capability since the pump casing is compact and disc-
7 shaped, fitting well between the apex of the heart and the adjacent
8 diaphragm. So I mean, we'll talk about this a little more, but they refer to
9 this language 20 times in their opening papers, 20. It's hard for them to say
10 today that this isn't central to the motivation to combine. They refer to it 20
11 times in their opening papers.
12 And the Board quoted it three times when discussing motivation to
13 combine in the '096 institution decision, pages 34 and 35. This language is
14 quoted three times for the motivation. It's about fitting that compact disc
15 between the apex of the heart and the adjacent diaphragm. That's how you
16 solve a lot of problems in this field, is by getting the pump there.
17 Now, our position is they're mixing and matching from the different
18 embodiments. They say, oh, no, no, no, we're not. They're only relying on
19 the second embodiment. Well, that teaching is for the first embodiment. If
20 you look at the second embodiment in Figure 13, it's a different shape. It's
21 much thicker. We don't have that compact disc shape now. We have a
22 longer cylinder.

1 And Wampler actually says that that difference is important. So in
2 paragraph 78, Wampler talks about the thickness in the axial direction, and
3 that by increasing the thickness of the blade sectors and narrowing the blood
4 passageway, the ratio between the working areas -- the area of the working
5 surface of the blades and the volume of the passageway is increased, which
6 it says increases the efficiency of this very small pump. So in the second
7 embodiment, it's important that that disc be thicker. Wampler says so.
8 So I don't know how you get to where you can mix and match every
9 teaching. These two teachings seem to be at loggerheads. The second
10 embodiment says you want it to be thicker because you make the pump more
11 efficient, whereas the first one says you want it to be thinner, you want it to
12 be compact and disc-shaped so it'll fit at the apex of the heart.
13 Now, they then take this from the first embodiment, which they say
14 they're not relying on, and they apply that to Bourque. We think they're
15 mixing and matching from the embodiments without a rationale. To us, it's
16 classic. If you have two different embodiments and you pick and choose
17 features from the two different embodiments, especially here where the
18 teachings are different, you've got to provide a rationale, and they don't. The
19 rationale is, well, no, Wampler says it's all the same, so you can use
20 anything.
21 So can we go to slide 14. So another way in which this difference
22 between the embodiments matters is Wampler seems to have an external
23 controller in the first embodiment. There's no controller discussed in any

1 way, shape, or form in the second embodiment. And while it's true that
2 pumps need some kind of control, there's no requirement, like the claims,
3 that it be external to the body.
4 What the claims say is, when the suction end is inserted into the
5 ventricle, the external controller is outside the body. Well, you could control
6 from inside the pump, you could control from an implantable controller, or
7 you could control from outside the body. The second embodiment doesn't
8 tell you anything about it, and it's a different pump than the first
9 embodiment.
10 One of the ways that Wampler achieves this compact disc is he uses
11 thrust bearings in this embodiment. The rotor isn't suspended, it bounces
12 back and forth off the bearings. And so they can't use the first embodiment
13 for a lot of the claim elements, because it requires a gap around the rotor, a
14 gap between the housing and the rotor that's filled with blood. And that
15 doesn't happen if you have a thrust bearing, if it's actually contacting the
16 bearing. So they can't rely on the first embodiment for that reason.
17 But once they can't, now they've got to provide reasoning for why you
18 would take the controller from the first embodiment of Wampler and add it
19 to the second. They don't do it. We agree that there has to be some kind of
20 control, but there's no reason why it has to be an external controller.
21 So if I could, I'd like to move on and talk about the Bourque reference.
22 Thank you. We're on slide 15 now. So actually, this is just to make a quick
23 point before getting on to the Bourque reference. So obviously, this

1 reference has a very different footprint. It's shaped very differently. It is
2 implanted in the body -- proposed to be implanted in the body very
3 differently, and it's an extraordinarily different size.
4 So we pulled up a Wampler paper in which he manufactured a
5 prototype of his first embodiment. And he said that blue disk, the compact
6 part, was 28 cubic inches -- I'm sorry, 28 cubic centimeters, 28 cc's. And it
7 weighed 195 grams. The Bourque pump, we know, was 168 cc's. So it was
8 six times the size. So when you talk about a compact disk, this isn't it.
9 So let's finish up with Wampler. Number 16, slide 16. Essentially, I
10 think I've made this point. We can't just willy-nilly take different features of
11 different embodiments of Wampler and apply them to a teaching for the
12 combination of the second embodiment in Bourque. It's got to be -- they've
13 got to give us a reason why we're going back to the first embodiment to grab
14 something and apply it to the second embodiment, add it to Bourque. And
15 we don't have it. They just don't say it.
16 Now, we also heard, and we see in their slides. They say that, oh,
17 well, yeah, the second embodiment of Wampler, well, it kind of was
18 implanted at the apex of the heart because that's what the HeartWare LVAD
19 was. And it wasn't. This is one of the reasons why we moved to exclude the
20 evidence of products that were not described in the publications. At the time
21 of the priority date, it's clear. We know that the HeartWare device was
22 implanted because there was an abstract in a press release that said so, but
23 we don't know what it was.

1 And so, for example, Dr. Wieselthaler says, he's Dr. Wieselthaler,
2 says all kinds of things about it, but he says all kinds of things that don't
3 appear in the printed publications. And, you know, one of the things that's
4 in their reply papers, in the reply itself, and in the language from their
5 experts, Dr. Wieselthaler and Mr. Crosby, are that, well -- essentially,
6 Crosby says it pretty clearly. He says they were mostly identical. But the
7 fact is they weren't. The HVAD was a very different pump from Wampler's
8 second embodiment.
9 And their experts, on cross-examination, Mr. Crosby admitted that he
10 had no idea what the HVAD looked like at the relevant time. And Dr.
11 Wieselthaler admitted both that the HVAD was different from the second
12 embodiment of Wampler and that the second embodiment of Wampler was
13 never built. Nobody ever built it. So you can't say that the second
14 embodiment of Wampler was axially implanted at the apex of the heart. A,
15 it wasn't. But we object to this line of evidence entirely because we're
16 talking about products that we can't see. It's product prior art. It's not
17 printed publications.
18 JUDGE TARTAL: Counsel, is there some premise that you were
19 operating under that an expert in an inter partes review can only base his
20 opinion on printed publications and patents? Because I think that's the
21 fundamental problem we have with perhaps what you're arguing, which is
22 I'm not aware of that.

1 MR. CAHILL: So I agree with your point. So the grounds cannot
2 include products. I think we can agree on that. They have to be printed
3 publications in the grounds. Can an expert refer to a product? I think an
4 expert could refer to a product. I think the expert here goes too far. The
5 expert here is dragging this product into trying to attach it to Wampler and
6 trying to explain how this product was just like Wampler and it was
7 implanted in this way.
8 Well, we can't challenge that for at least two reasons. One, we can't
9 see it. It isn't in a printed publication. And two, they do this on reply so our
10 experts can't say anything about it. We feel sort of doubly having our hands
11 tied behind our back when it comes to this information about HVAD and
12 other information about products that we can't see.
13 JUDGE TARTAL: Is Petitioner relying on products to demonstrate
14 how prior art discloses limitations? Or are they using it in the context of
15 replying to arguments Patent Owner raises concerning motivations to
16 combine?
17 MR. CAHILL: Well, we heard it today that the HVAD had a short,
18 axially aligned input to it.
19 JUDGE TARTAL: But that's not what they're relying on in the
20 grounds, correct? They're not relying on what's disclosed in a product in the
21 grounds because it may very well be the printed publication they're relying
22 on shows that element. So the fact that it shows the element as well as they
23 assert a product does is not a deficiency in their ground. It's just their

1 opinion on what is shown in or what would be known by a person of
2 ordinary skill in the art.
3 MR. CAHILL: So in fairness to us, it wouldn't be known by a person
4 of ordinary skill in the art because they couldn't see it. And we objected to
5 their slide 38. That was the one we objected to. And counsel skipped over it
6 today. But if you're reading those, it's Dr. Dr. Wieselthaler in his reply
7 cross-examination being redirected, talking about how everybody knew what
8 was in the HVAD device. Everybody knew it. They do go further than just
9 simply saying, oh, there was something out there that repots your testimony.
10 And by the way, I kept hearing that we say all of this was impossible.
11 No, we were pretty specific. So the HVAD was not FDA cleared until 2012.
12 So a person of ordinary skill in the art couldn't just get one. Somebody on
13 the inside, like Dr. Wieselthaler, may have known, but other people didn't
14 know. The structure of it hadn't been published. And we'll get to this. We
15 have a couple of slides to talking about what was actually disclosed about it.
16 But unless you were on the inside, you didn't know what it was. A
17 person of ordinary skill in the art wouldn't know what it was. Our experts
18 didn't know what it was because they didn't have access to it. Our surgeon
19 couldn't get one until after it was FDA cleared. That's what we meant. And
20 when it comes to practical impossibility, we're specifically referring to large
21 pumps, like Bourque 2001 and Akamatsu.
22 Our experts say those pumps are so big that it's a practical
23 impossibility to implant them at the apex of the heart, between the apex and

1 the diaphragm, as Wampler supposedly teaches. That it's practically
2 impossible to do that.
3 JUDGE TARTAL: And then just to follow up, you, I thought,
4 indicated that because arguments were put forward in the reply, you had no
5 opportunity to respond. What were you referring to? Your reply or
6 surreply?
7 MR. CAHILL: Well, our experts couldn't. We could not put in new
8 expert declarations to address.
9 JUDGE TARTAL: Did you make any kind of request to the Board
10 for leave to submit additional declaration testimony from your experts in
11 response to the reply?
12 MR. CAHILL: We did not. And if I'm being honest, we didn't
13 because I've never had one granted. But we did not.
14 JUDGE TARTAL: Thank you.
15 MR. CAHILL: So let's go to slide 18. So just to beat this dead horse
16 completely, so we have some post-priority date publications that tell us what
17 the HeartWare HVAD looked like. And it's very different from Wampler's
18 second embodiment. If you just look at the rotor, instead of having a spindle
19 that sticks up through the inflow tube, it's got a hole. It's just, it's a different
20 configuration. So we eventually found out what was in it, and it wasn't
21 Wampler's second embodiment. There's no basis for believing the second
22 embodiment of Wampler was in it.

1 So now let's turn to Bourque, slide 19. So axially aligned. So our
2 position has been talked about a lot. And we did not ever take the position
3 that to the bitter end, every bit of the inflow tube has to be axially aligned
4 with mathematical precision. What we pointed out, and it was clear in the
5 slide that Petitioner's put up, what we pointed out is the inflow tube ends
6 with a suction hole or a suction opening.
7 And so that figure where the entirety of the inflow cannula is outlined
8 in green, that comes from Petitioner's expert. He seems to agree with us that
9 that whole thing is the inflow tube. So our position is that entire thing has to
10 be the inflow tube. So once you define what the inflow tube is, and you
11 know what the axis of rotation of the lure is, now you look at those two
12 things and ask yourself, are they axially aligned? And it seems to us that
13 Bourque is not. That tube is perpendicular to the rotational axis. It's the
14 opposite of axially aligned.
15 JUDGE TARTAL: What is your argument in response to Petitioner's
16 contention that the only embodiment disclosed dictates how the term should
17 be construed? And under that sort of construction, it must be interpreted to
18 mean that only some small portion is axially aligned of the inflow tube, not
19 the entirety of the inflow tube?
20 MR. CAHILL: So some small portion seems completely incongruent
21 with the evidence. So let's go to slide 21. So this is Figure 2 of the Miracor
22 patent, the '356 patent, the '096 IPR. Slide 21. The magnetically-driven
23 rotor 18 spins and has an axis that goes straight up and down. The inflow

1 tube 9 goes straight up and down. They are axially aligned. There's no
2 doubt that they're axially aligned.
3 In fact, we asked Mr. Crosby, the petitioner's expert, is the axis
4 straight up and down? Yes. Is the tube straight up and down? Yes. Are
5 they axially aligned? He said, I don't know. I've never taken a position on
6 what axially aligned means. Which makes it hard for us to understand how
7 they can make any of these arguments. But this is clearly axially aligned.
8 Now, this is a partial view of the inflow tube. No. Is it possible that it curls
9 slightly at the end? Sure. The ordinary meaning of axially aligned doesn't
10 seem to require mathematical procedure.
11 Would a person of ordinary skill in the art look at the rotor,
12 understand where the axis is, look at the inflow tube, and say, yeah, those
13 things are axially aligned? I think the answer is yes, even if there's a slight
14 curl at the end.
15 JUDGE TARTAL: Do you agree that there's only one embodiment
16 shown in the '356 patent?
17 MR. CAHILL: Well, I agree that there's one embodiment, but it's
18 illustrated differently. The inflow tube 9 is the inflow tube 9. The line
19 drawing of Figure 1 doesn't look like it's intended to be hyper-accurate, and
20 we should look at the geometries and the dimensions and figure out what
21 portion is and what portion is axially aligned or not. It just doesn't seem to
22 be that. It's a line drawing. It's a diagram. This one is much more specific,
23 and it clearly shows axial alignment.

1 The problem I have with the portion argument is that's a pretty small
2 portion. In fact, it looks like the inflow tube is 100 percent at a 90-degree
3 angle to the axis. It's got a hole in the side for the blood to come through.
4 And the petitioner's try to make a big deal out of the flow going down. The
5 flow is more complex than that, and the Board recognized that in the
6 institution decision.
7 Mr. Bourque did a computer fluid-dynamic model and showed that it
8 was more complex than that. But it's not the flow that's claimed. It's the
9 tube, and the tube is perpendicular. All the way from the beginning to the
10 end, it's perpendicular. How can that be axially aligned? It's the opposite of
11 axially aligned.
12 Okay. Let's move to slide 23. So we think that a person of ordinary
13 skill in the art would not believe the motivation that has been proposed by
14 the petitioner, that the evidence simply doesn't support it. And we're starting
15 here with -- this is an abstract of a paper by Richard Wampler. It's around
16 the same time as this patent application, and it shows the first embodiment
17 pump. It's where he built his prototype of it.
18 And he's pretty clear. He's talking about, in this paragraph, he's
19 talking about magnetically suspended rotors, like the Bourque 2001
20 reference. Magnetic suspension rotors. And he says, the electromagnets
21 used for active magnetic bearings add significant volume and weight,
22 making these pumps large and heavy when compared to other rotary pump
23 concepts. So we think Richard Wampler got this exactly right. So because

1 of the size of the magnets required by the Bourque 2001 pump, it's too big
2 and heavy. And Wampler recognized it. Mr. Bourque recognized it too.
3 So let's go to slide 24. So here are some pieces. In the petition, we
4 quoted this one sentence. A POSITA would have adhered to express
5 teachings of Wampler, which focused good anatomic capability so that the
6 device fits well between the apex of the heart and the adjacent diaphragm,
7 eliminating the need for peritoneal pocket dissection associated with
8 increased rates of infection.
9 So, the petition, this is one example. We submitted an exhibit that
10 listed 20 of these between the petition and the initial Crosby declaration,
11 explaining that a person of ordinary skill in the art would have made this
12 change, would have added the inflow tube from Wampler to the Bourque
13 pump in order to fit it between the apex of the heart and the diaphragm.
14 And like I said, the Board quoted this language three times in the
15 discussion of motivation. It just seems incredible that this isn't the basis of
16 the motivation. It is. The petitioner has the burden to prove motivation to
17 combine. And this is what they say the motivation to combine is. And we
18 say the evidence clearly cuts the other way. If we're right, if the Board
19 evaluates the evidence and says, no, this really doesn't make sense, a person
20 of ordinary skill in the heart wouldn't believe this, wouldn't do it, then
21 they're left without motivation. And without motivation, they can't make the
22 combination.

1 Let's go to slide 25. So here's one chart that our experts put together
2 to talk about the size of the pumps. And we'll get to the issue of whether
3 size needs to be in the claims a little bit later. But these sizes are telling. So
4 the Bourque 2001 pump is gigantic. So looking at the HeartWare HVAC
5 device, which ultimately is a device that we knew was implanted at the apex
6 of the heart, and Bourque 2001 pump is three times bigger than that. It's
7 three times bigger.
8 You look at the Wampler blue disk. Volumetrically, Bourque 2001 is
9 six times bigger. This pump is large by any standards, and a person of
10 ordinary skill in the art would know. Because other pumps that are large
11 don't go to the apex of the heart, this one can't go to the apex of the heart.
12 So let's go to slide 26. So Petitioner never says, oh, that's not true.
13 Bourque 2001 is small enough to fit -- to have that good anatomic capability
14 and fit between the apex of the heart and the adjacent diaphragm. They
15 never say that. They say all kinds of other things. They say, oh, you could
16 make it smaller. You don't have to implant it there. We're wrong to say you
17 have to implant it there. They say you have to implant it there. It's in their
18 motivation.
19 So let's look at what Mr. Bourque said about that. Slide 27. So we
20 saw some of this from the petitioner, that in a 2021 interview, Mr. Bourque
21 said, looking back at 2006, we decided we had to go back to the drawing
22 board and redesign the pump. We made it smaller. And then because we

1 made it smaller, we could move it to the apex of the heart. That's what he
2 said. Can we pull up that exhibit? Exhibit 2007.
3 Okay. So go to the bottom of page 5. So he's talking about the
4 history of heartware. And he gets to the very bottom, and he says, so in
5 2006, we said, let's stop. Let's do exactly this, but let's make it -- next page -
6 - a mini one of those. So how did they do it? All the work in a smaller
7 package. So again, the bottom paragraph, they needed something
8 significantly smaller. So that's what they designed. And that's a good thing.
9 But that doesn't mean it delivered half the performance.
10 So the bottom paragraph, again he explains what he did to make it
11 smaller. A couple of things. One, by flipping the rotor upside down --
12 flipping the rotor upside down, we're able to gain a little bit of the real heart.
13 The electronics themselves, the chips are smaller, so we shrunk for that. But
14 then, when we got this small, we said, wait a minute. Now we don't need to
15 implant it down there in the abdomen. We can go right in the chest.
16 So ultimately, he did, and he says, we took away this whole business
17 about creating a pocket for the pump and then requiring a conduit. So all the
18 things that they said, yeah, Mr. Bourque figured those out. So he did that,
19 though, later than the priority date. And the changes, the flipping the rotor
20 upside down, that's patented.
21 So this isn't something a person of ordinary skill in the art would think
22 to do at the priority date. Mr. Bourque, whose pump it was -- I think his
23 provisional was filed in 2010. We didn't actually see the structure of the

1 redesigned pump until a 2016 paper. That's how long it took to redesign the
2 pump, to get it small enough to go to the apex of the heart.
3 Could we pull Mr. Leschinsky, Exhibit 2015? Yeah, page 102. I'm
4 sorry, page 89. Okay. So this is where Dr. Leschinsky -- I'm sorry, Mr.
5 Leschinsky, our biomedical engineering expert, he analyzes the Bourque
6 patent. And what you'll see here is the Bourque 2001 pump is on one side
7 and the redesign is on the other side. And the rotor is flipped over. Now the
8 rotor is at the bottom, and the blood flow goes through the stator and into the
9 rotor.
10 And Mr. Leschinsky explains all that, and he ties it to the claims of
11 the patent. This was a patentable redesign that got this pump small enough
12 to be ultimately the clinical HeartMate III implanted at the apex of the heart.
13 And it's two and a half times smaller than the original pump. That's what it
14 took to make it smaller. So when they say, oh, you could just make it
15 smaller. No, a person of ordinary skill in the art, at the priority date, could
16 not make it smaller. So let's --
17 JUDGE REIMERS: Counsel, I have a quick question for you. I
18 know you're mostly referring to the '096 patent.
19 MR. CAHILL: Yes.
20 JUDGE REIMERS: And I know we have several patents here. And
21 I'm receiving all of your points here regarding the combination. But where
22 is this found in the claims where the implantation has to be at the apex of the

1 heart? Is that located in any of the independent or dependent claims from
2 any of the patents that are cited here?
3 MR. CAHILL: It's not. So could we go to slide 20? So, Judge
4 Reimers, it is not our position that it's required by the claims. Our position
5 is this is their motivation. They have said a person of ordinary skill in the art
6 would be motivated to take the inflow tube from Wampler and add it to the
7 Bourque pump in order to place Bourque at the apex of the heart.
8 And our position is the evidence for that fails because a person of
9 ordinary skill in the art would know that the pump was too big and wouldn't
10 be able to do that. This is a failure of evidence to support motivation. It's
11 not an argument that says they're failing to make the teachings of the claim.
12 JUDGE REIMERS: Thank you for that clarification.
13 MR. CAHILL: And here's some of the case law. So in particular, and
14 this is about the case we cite, Intelligent Bio-Systems. Interesting case. So
15 the Federal Circuit actually disagreed with the patent owner on reasonable
16 expectation of success, but agreed on evidence as to the motivation. And the
17 key to the evidence on motivation was this quantitative deblocking
18 requirement.
19 So the motivation to change the primary reference involved making it
20 more efficient, more reliable with the process. And in order to do that, in
21 order to do it, you had to provide quantitative deblocking. And the thing
22 they added didn't do quantitative deblocking.

1 And so the Federal Circuit said that's a failure of evidence for
2 motivation. A person of ordinary skill in the art would know you needed
3 this thing in order to make it work for the motivation. And the evidence
4 says it's not there. But that's a failure of evidence for the motivation. And
5 when the motivation collapses, you've got no reason to combine.
6 Now they've said, oh, but there there's only that one motivation. They
7 have a bunch of motivations. They have one motivation to which they also
8 add the elbow. We'll talk about the elbow more. But the motivation is if
9 you move the pump to the apex of the heart, you can remove the elbow.
10 You can get rid of the peripheral hardware. You don't need to create the
11 preperitoneal pocket.
12 All things that are good come from moving to the apex of the heart.
13 But if the pump's too big, you can't do it. And if a person of ordinary skill in
14 the art would look at it and say, yeah, that pump's too big, you wouldn't do
15 it, then there's a failure of evidence for the motivation.
16 Now, we raise this in our preliminary response. And in the institution
17 decision, the Board said, huh, this is interesting. But it's turned the
18 argument. You didn't put in any expert declarations. Well, now there's a lot
19 of expert declarations.
20 We put in Mr. Leschinsky who's our biomedical engineering expert,
21 Dr. Gallegos who has a very busy surgical practice implanting health ads,
22 who talk about all the reasons why a person of ordinary skill in the art would
23 recognize the Bourque 2001 pump is distinguished from some of the other

1 pumps. The Bourque 2001 pump was just too big. It would never go there.
2 And we look at some -- there's so much data on that.
3 Now, the Axonics, the Medtronic case the petitioner sites, it's a
4 different context. So in that case, the -- it had to do with medical electrodes.
5 And one of the pieces of the prior art involved the activation of trigeminal
6 nerves. And in that case, the Board decided to limit the motivation to the
7 trigeminal nerve context based on the prior art.
8 And the Federal Circuit said, no, no, no, you don't get to do that. That
9 the context is the claims, and the motivation is what's stated in the petition.
10 And you don't get to change the motivation and make it narrower because a
11 particular piece of prior art says -- essentially, it teaches what it teaches.
12 And if it can be used in other contexts, it can be used in other contexts.
13 That's very different from here. So here, nobody's changing the
14 motivation. Petitioner said, if all these benefits from moving it to the apex
15 of the heart, the way to move it to the apex of the heart is to combine it with
16 Wampler. Our position is, the evidence says that doesn't work. You can't do
17 that. A person of ordinary skill in the art would know better than that. And
18 that, we think, makes us exactly like Intelligent Bio-Systems. So the size
19 requirement, placing the pump at the apex of the heart, those don't have to be
20 in the claims.
21 And I urge you in the strongest terms to read the motivation section of
22 the Intelligent Bio-Systems case because the Federal Circuit's really clear.
23 The motivation doesn't have to be in the claims. If the evidence for the

1 motivation fails, then the motivation fails. And if the motivation fails,
2 you've got no reason to combine. That's what our argument is.
3 Okay. So I'd like to talk a little bit about VentrAssist. So the
4 petitioner's put up this slide. And they didn't make this argument in the
5 petition and they didn't cite to this reference in the petition. But they cite to
6 it now for the proposition that, well, to combine Wampler with Bourque, you
7 don't have to position it at the apex of the heart. You could do this instead.
8 And they talked about this a lot in their presentation. And we think a
9 number of things about this.
10 So it's not in the petition or the opening reports. But it doesn't have
11 the inflow tube from Wampler. It has something very different. And there's
12 no evidence that the Bourque pump could be implanted this way. So the
13 Bourque pump is actually much bigger than the VentrAssist pump. And Mr.
14 Bourque is very specific about how his pump is implanted. The Board looks
15 like it has a question.
16 JUDGE TARTAL: Wasn't the -- yes, thank you. Wasn't the -- I'll
17 paraphrase the issue, correct me if I'm wrong, but wasn't there a dispute over
18 the fact that Patent Owner's position seemed to be that no one had ever
19 placed a pump at that particular location? And they were pointing to some
20 other disclosures that indicated pumps had been placed at that location at the
21 time relevant for priority. So it was rebutting not so much the details of
22 what was placed there, but that it was rebutting a factual assertion made by
23 Patent Owner that it had never been done. Is that wrong or --

1 MR. CAHILL: Yes. And what we've said is more subtle than that.
2 But this doesn't show implanting. The thing that we supposedly said is no
3 one had ever implanted at the apex of the heart.
4 JUDGE TARTAL: Well, did you say that or did you supposedly say
5 that?
6 MR. CAHILL: So I would have to think about that. So certainly, we
7 were very clear that it was impossible for someone to implant Bourque or
8 Akamatsu at the apex of the heart. We also said that in the sort of public
9 domain, there was no evidence of someone implanting at the apex of the
10 heart, that the descriptions of HVAD came later. It was FDA cleared in
11 2012 after the priority date.
12 So sure, there were people behind the clinical trials who knew what it
13 was, but a person of ordinary skill in the art looking at the public literature
14 wouldn't. So that's what our position was. So this doesn't suggest
15 implantation at the apex of the heart. So they suggest that what this shows
16 is, well, you could use an axially aligned inflow tube and implant in a
17 preperitoneal pocket someplace else in the body, because that's what
18 VentrAssist did.
19 And we don't think that this is what VentrAssist did. We think it's
20 really clear from this picture that that's not an axially aligned tube. It's not
21 straight. And the reason I say that is one can use one's own eyes. This is a
22 perspective. You're looking down a little bit at the patient. And that pump
23 is implanted horizontally, and you can see the top of the pump. But then you

1 can also see the bottom of the cuff at the apex of the heart. So the heart -- in
2 a person who's standing straight up, the apex of the heart doesn't point
3 straight down. There's lots of figures in here that show that.
4 So the fact that you can see both the top of the pump and the bottom
5 of the cuff tells you that that curves or angles or bends. It just does it in the
6 plane that you're looking at. So you can't see it clearly. But logically, it has
7 to curve, because the pump is facing straight up, but the heart's not facing
8 straight down. And that's why you can see the top of the pump and the
9 bottom of the cuff.
10 Now, the person who talked about this, Mr. Crosby, he was actually
11 the CEO of VentrAssist. He didn't provide any more information. He just
12 used the reference that we cited. Didn't provide instructions for use or
13 surgical guide or catalogs or inflow tubes. Didn't provide any of that. All
14 we have is this one figure. And we don't think it shows, but they say it
15 shows. You can stop.
16 I think we've talked enough about each one of them. So let's go to
17 slide 31, Patent Owner's slide 31. So again, I mean, even looking at this
18 chart, comparing VentrAssist to Bourque 2001, VentrAssist weighed 50
19 percent less. Significantly smaller pump. There's no reason to believe, and
20 there's no one who says you could take the Bourque 2001 pump and implant
21 it the way we saw in that figure. Bourque is much larger than anything that
22 gets implanted at the apex of the heart.

1 Now let's talk about some of the other motivations to combine that
2 have been raised. Yeah, slide 32. So this is the so-called flow-restricted
3 elbow. And so the petitioner says that Bourque did that because he just
4 wanted to use the old tubes, or tubes lying around for previous pumps, and
5 he wanted to use those. We don't think that's the case at all. We think that
6 the elbow is there specifically to make it anatomically compatible. That's
7 how he fits this big pump in the human body.
8 Could we go to the Bourque 2001 reference? Down one. Okay. So
9 the bottom of the first column. The flow path is a circular cross-section
10 through the inflow and outflow sections. The shape was gradually flattened
11 near the pump in both the inflow and outflow to reduce the effect of pump
12 height.
13 To orient the pump in the least intrusive position, i.e. in the human
14 configuration, as in Figure 3, it was decided that the rotational axis of the
15 pump's rotor should be perpendicular to the body's long axis. That resulted
16 in a sharp bend in the flow before it enters the impeller. To minimize losses
17 in this transition, the flow is slightly accelerated through this elbow.
18 So Mr. Bourque knew what the elbow was, and he put it in there so
19 that he could place it inside the body. This is a big pump. It has to go up
20 and down. He's clear about that. And to get it to do that, you have to put the
21 elbow on. So this isn't a question of just using old tubes. He is specifically
22 designing it this way, to fit inside the body.

1 Now separately -- moving back to slide 32 -- separately, Mr. Bourque
2 did his own CFD analysis, a computerized fluid dynamics analysis, and
3 found benefits to the elbow. He liked the elbow. It caused a swirl. We
4 heard the swirl was a problem. Their experts said the swirl was a problem.
5 Mr. Bourque said the swirl was great. That because of the swirl, there was
6 no stagnation in the flow and no thrombus buildup. When they looked at the
7 pumps from the animal studies, there was no thrombus, in part because there
8 was this swirl that cleared it out. So no thrombus means no strokes for the
9 patient. This is a big deal.
10 We don't think that you can remove the elbow. You certainly can't fit
11 it at the apex of the heart. Everyone agrees with that. Our experts also say if
12 you put an axially aligned flow tube on the top of the Bourque reference,
13 you're not going to be able to fit it in the body. A person of ordinary skill in
14 the art would know that. A person of ordinary skill in the art reading
15 Bourque and reading Wampler would know that you can't just put a straight
16 tube on it and implant it in the body. There's no place to put it in that
17 orientation.
18 Mr. Bourque says it needs to be up and down. The flow -- the
19 rotational axis needs to be perpendicular to the body's long axis, and that's
20 why he puts it there. You can think of it almost like if I wanted to implant a
21 dental plate, you can imagine I might be able to tuck it behind the muscles,
22 but if I tried to put it in horizontally, that could be a disaster. So he implants

1 it in that configuration where it's straight up and down. And for that, he
2 needs the elbow. You can't just take it away.
3 So another so-called motivation to combine -- they identified four in
4 the petition, we've talked about two of them. Another one is the removal of
5 peripheral hardware. So this is the tubing. But you can only take out the
6 tubing if you move the heart above the diaphragm and connect it right at the
7 apex.
8 If you don't do that, even the VentrAssist example, that's got screw
9 threads on the top, and you've got to screw on flow tubes that then cross the
10 diaphragm and attach to the heart. So you only get this benefit of removing
11 the peripheral hardware if you implant at the apex of the heart.
12 The last motivation is they're analogous. Well, we agree that both
13 Wampler and Bourque are directed to hollow ends. But a person of ordinary
14 skill in the art, looking at them, would understand you could never do what
15 their motivation says, looking at the size of the pump.
16 They're not analogous from the terms of the teaching in Wampler that
17 says, you have this compact disk that fits between the apex of the heart and
18 the diaphragm. They're right next to each other. Bourque shows that.
19 They're right next to each other. So you need something small. Bourque
20 isn't that. They're not analogous from that perspective. A person of ordinary
21 skill in the art would know that you can't replace that blue disk of Wampler
22 with the much larger pump of Bourque.

1 So I only have a few minutes left to move on to Akamatsu. So
2 Akamatsu does not teach an axially adjacent magnetic device and motor.
3 This is Petitioner's mockup of it, and I don't think it does it justice. Could
4 we go to the original? This is Exhibit 1006, page 2. So can you blow it up?
5 Yeah. So you can see those circular arrows, they surround parts of the
6 impeller, and the magnet is embedded in the impeller. The surfaces are
7 coincidental. So it isn't the case that there's one, and then there's another
8 next to it. It's embedded inside of it, as it is in Wampler. It's a different
9 configuration, but it's the same issue. So it's not axially adjacent. They're
10 not next to each other in the axial direction. One's inside the other.
11 Similarly, for axially closer, which one is axially closer to the second
12 magnetic device. So the second magnetic device is to the left, the other side
13 of the wall. There's a platform there. It's not cross-hatched, and it's got the
14 black magnet on it. So that's the second magnetic device. It's not closer to
15 the first magnetic device than it is to the other. At best, they're coincidental.
16 So it's not axially closer. So we think Akamatsu doesn't teach these
17 limitations, and so it can't be used on its own.
18 Can we go to slide 37? So a person of ordinary skill in the art would
19 not do what Petitioner suggests, which is they say, well, what you do is you
20 take the pump of Schima, and you would implant it in the manner of
21 Akamatsu, right? Because they're analogous, you do it the same way. So
22 first of all, we don't think Akamatsu is implanted at the base of the heart.

1 Can you go back to Akamatsu? Show that page. And go up. So
2 Petitioner presents this with all kinds of drawings on top of it. And sure, it
3 looks great when they draw in all the features. But we asked their expert,
4 Mr. Crosby, how is this pump attached to the heart? And he said, I don't
5 really know. This kind of looks like a bad copy.
6 JUDGE TARTAL: Could you repeat that?
7 MR. CAHILL: He said, I don't know how it's attached to the heart.
8 This looks like a bad copy. I don't know how to figure it out from this
9 picture. That's what he said.
10 JUDGE TARTAL: Okay.
11 MR. CAHILL: Now, our experts also asked Mr. Crosby, is this pump
12 implanted above the diaphragm? He said, I don't know. Can we look at
13 what Mr. Leschinsky said about this? Exhibit 2015, page 102. So he
14 explains this in his declaration. But on the left, we have Petitioner's mockup
15 of Akamatsu. And on the right, we have Petitioner's mockup of Bourque.
16 And you can see on Bourque that the green inflow tube is attached to the
17 apex of the heart. And that's the diaphragm right underneath it. He labels
18 the diaphragm. It's adjacent to the apex of the heart.
19 And so then, if you look back at Akamatsu, there's no way. There's
20 just no way that it's implanted in the manner they draw. There's not room
21 there for that gigantic pump. This pump is a bigger volume than the
22 Bourque pump. It's actually bigger. There's no way it could be implanted

1 there. This is a hope and dream. A person of ordinary skill in the art would
2 know that. And that's what our expert says.
3 So could we go to our slide 37? So here we have a chart with
4 Akamatsu on it. And you can see the volume is actually bigger than the
5 Bourque pump. It's actually bigger. It's massively larger, for example, in
6 the HeartWare pump. So a person of ordinary skill in the art would know.
7 This has to go in a pocket the way the Bourque one does.
8 And fascinatingly, before we talk about the product prior art, we go to
9 slide 40. So the petitioner says that the Akamatsu pump was implanted as
10 DuraHeart. Well, we see DuraHeart here, and they configured it just like
11 Bourque. So now the inflow tube is not axially aligned. It's perpendicular.
12 In the bottom picture, it's the tube on the top right. Petitioner's expert
13 confirmed that. And you can see it in the picture at the top that has it pulled
14 apart. The inflow is perpendicular to the impeller.
15 So the people who actually implanted the Akamatsu pump, they did it
16 exactly the way Bourque did. Not the hope and dream that you can't tell in
17 the picture that the petitioner was in.
18 JUDGE TARTAL: Can you just address for me the way in which you
19 distinguish what the reference discloses and the size of what the reference
20 discloses for purposes of motivation to combine? Because it seems like a lot
21 of your argument is driven by the idea that this particular pump shown with
22 this particular size and volume wouldn't fit somewhere in particular. But
23 isn't that a little bit narrow of a reading of a reference if you were trying to

1 limit its disclosure to something like dimensions? Is there more to your
2 argument than, it's too big, that would be relevant to our analysis of a
3 motivation to combine?
4 MR. CAHILL: So it is too big. And that is an important part of our
5 analysis. The petitioners say it needs to be implanted in the body a certain
6 way.
7 JUDGE TARTAL: And I realize this is hypothetical, but what is your
8 argument in terms of how big is too big, how small is too small? There's
9 nothing in the claim that requires any performance level, any size, any
10 volume, any rate of operation. And I'm not sure what the evidence is that if I
11 make it 75 percent smaller, does that fit? Does it not fit? Or are we looking
12 more at what does this disclose in terms of structure that would be relevant
13 to the combination?
14 MR. CAHILL: So I beg and plead with you to read the *Intelligent*
15 *Bio-Systems* case. Because the point is not that the claims are requirements.
16 The point is the petitioner's motivation is to fit the pump between the apex of
17 the heart and the diaphragm. And we know a lot about what in the art works
18 for that. And we know that because Wampler tells us.
19 JUDGE TARTAL: But you just said what works in the art for that.
20 And I'm not sure what works in the art is distinguishable from what the
21 structure is that's claimed. So are you arguing that a person of ordinary skill
22 in the art would somehow implicitly know that a pump that's half as big

1 wouldn't work as well as a pump that's twice the size, and so that refutes the
2 motivation to combine? Or where is the --
3 MR. CAHILL: Yes, they did know. And so you can look at this
4 chart, for example, that shows the sizes and where they're implanted. Mr.
5 Bourque knew. He knew in 2006 his pump was too big. And we looked at
6 the quotes. His pump was too big to be implanted at the apex of the heart.
7 When he made it half the size, and you can see the numbers on here, the
8 weight dropped from 474 to 200. The volume dropped from 168 to 80.
9 And now he says, he says this in 2021, but he says, now we can
10 implant it at the apex of the heart. Now we meet the petitioner's motivation.
11 We can take out the peripheral hardware. We don't have to do the
12 preperitoneal pocket. So our experts never went to, here's the size that
13 works and here's the size that doesn't, because I think that's too hard to do.
14 But if you look at the examples, below a certain threshold, they go to the
15 apex of the heart, and above that threshold, they end up in the preperitoneal
16 pocket.
17 And this isn't about the claims. This can't be about the claims. This is
18 about the petitioner's stated motivation. The evidence is, a person of
19 ordinary skill in the art would not be so motivated with the Bourque pump or
20 the Akamatsu pump, because they're too big to fit.
21 JUDGE TARTAL: Isn't the teaching of Bourque broader than the
22 specific size of Bourque's pump? Is there nothing that a person of ordinary
23 skill in the art could take from how an apparatus is configured that would be

1 relevant to how you would design a pump that isn't completely constrained
2 by the pump shown in Bourque has a volume of 100 or whatever it is?
3 MR. CAHILL: So there's a couple of things about that. One is, the
4 Wampler patent tells us compact disc size fit between the apex and the
5 adjacent diaphragm. Bourque isn't that. Richard Wampler tells us, magnetic
6 suspension, like the Bourque design, heavy and too big.
7 Mr. Bourque realized his pump was too big. When you read Bourque
8 2001, he's clear about what it takes for anatomic compatibility. You've got
9 to put it in a pocket, and you've got to put it up and down with the elbow on
10 it. He realized, after they went through a many-year redesign project that
11 resulted in patents on the new design, now it was small enough to move it to
12 the apex.
13 JUDGE TARTAL: But isn't that sort of part of the question, which is,
14 the claim doesn't require any performance? You say that it took two years to
15 make it smaller, but it took two years to make it smaller presumably in the
16 context of some level of performance that matched what was done before.
17 But the claim doesn't require that. It doesn't require any particular size or
18 performance level. I don't want to overstate the case, but that's correct,
19 right? Isn't it correct?
20 It's a little disingenuous to say it took him five years to make it
21 smaller, because I think that would inherently take into consideration some
22 level of performance. He's trying to make a product smaller that does the
23 same thing. Is that consistent with your understanding?

1 MR. CAHILL: That's not -- it's not in the record. And I don't know
2 what to tell you about that, but that's not in the record. They suggest, oh,
3 just make it smaller.
4 JUDGE TARTAL: And why is that wrong? Because if they say just
5 make it smaller, if there's nothing claimed that has anything to do with how
6 well this works, all you're saying is, here's a pump, make it smaller, doesn't
7 have to meet any claimed performance, why is that argument wrong from
8 them? And why isn't your argument just a bodily incorporation argument,
9 it's too big?
10 MR. CAHILL: This isn't about claiming performance. This is about
11 failure of motivation.
12 JUDGE TARTAL: I understand --
13 MR. CAHILL: There's no motivation to combine. The reason drops
14 out if you don't combine. Now, these are -- I mean, Bourque's pump is
15 carefully designed. Just saying make it smaller, and it doesn't have to
16 perform, but what pump is it then? There is no suggested pump that's
17 smaller. The only thing they say about make it smaller is the chips shrink.
18 But the problem isn't the chips. The problem is the magnets. Wampler
19 points that out. And Bourque points that out when he did change it, he had
20 to flip over the whole thing and fit it differently. The problem is the size of
21 the magnets.
22 And, no, nobody knew how to make it smaller and still have a
23 magnetic suspension. That just wasn't known. Our point is, a person of

1 ordinary skill in the art, looking at that Bourque pump, would realize there
2 was no chance you were going to fit that at the apex of the heart. So, to the
3 extent that their motivation relies on fitting it to the apex of the heart, it's a
4 failure of evidence, exactly like Intelligent Bio-Systems.
5 And it doesn't have to be in the claims. They have to prove the
6 motivation. It's their burden to prove the motivation, and we think they've
7 failed because a person of ordinary skill in the art would look at their
8 motivation and wouldn't believe it. Thank you.
9 JUDGE HAMANN: Counsel, this is Judge Hamann. Just real quick,
10 just to make sure I'm following the argument fully. And without the smaller
11 pump allowing it to move to the apex of the heart, you don't lose the elbow.
12 You don't get to axially align with the claim. Is that basically the crux of it?
13 MR. CAHILL: So when you say of the claim, no. This argument is
14 exclusively about the motivation to combine.
15 JUDGE HAMANN: I understand that, but I guess my point is, the
16 motivation -- the reason that you want to have a small pump is so you can
17 move to the apex of the heart so you can get rid of the elbow in Bourque,
18 and therefore you can be axially aligned. That's what the claims require.
19 MR. CAHILL: That's fair. That's the purpose of the combination,
20 yes.
21 JUDGE HAMANN: Okay. Thank you.
22 JUDGE TARTAL: Okay. Thank you, Counsel. We're going to go
23 off the record and take a break, but a brief break. So I think ten minutes.

1 And then I know you went a little bit over the original 75 minutes you
2 requested. Do you have an amount of time for the surrebuttal that you had
3 hoped to have?
4 MR. CAHILL: Yes. I'd love to have ten minutes. I think I have five
5 and a half left. On the other hand, if you'd like to limit me to the time, I'm
6 not inclined to complain.
7 JUDGE TARTAL: I would just give Petitioner an extra five minutes,
8 if you want an extra five minutes.
9 MR. CAHILL: They already have it all figured out.
10 JUDGE TARTAL: Do you want to stick with it?
11 MR. CAHILL: I'll stick with it.
12 JUDGE TARTAL: Okay. Then we'll start again in roughly ten
13 minutes. I think that is 4:00 o'clock.
14 (Whereupon, the above-entitled matter went off the record at 3:50
15 p.m. and resumed at 4:00 p.m.)
16 JUDGE TARTAL: I have you at 34 minutes. Does that sound right
17 to you?
18 MS. WICKRAMASEKERA: That sounds -- yes, that sounds right.
19 JUDGE TARTAL: What you were at -- or thereabouts.
20 MS. WICKRAMASEKERA: We're hoping for less, but --
21
22 JUDGE TARTAL: You don't have to use all 34. Although, we do get
23 to hear from the LEAP practitioner, or we'll be --

1 MS. WICKRAMASEKERA: Yes, no, we will, yes.
2 JUDGE TARTAL: -- subtracting 15 very shortly.
3 MS. WICKRAMASEKERA: Yes, that we --
4 JUDGE TARTAL: Okay. We are back on the record for the hearing,
5 and you may begin when you are ready.
6 MS. WICKRAMASEKERA: Thank you, Your Honor. Nimalka
7 Wickramasekera, again, for Petitioner. I want to address a few quick points
8 regarding Grounds 1, 3, and 4, and then I'm going to turn it to my colleague
9 Mr. Boyle, who will address the objections.
10 JUDGE TARTAL: And we'll just remind you that the arguments
11 should be directed primarily to issues that were addressed by Patent Owner
12 in their argument in response since this is in reply.
13 MS. WICKRAMASEKERA: Yes. Yes, thank you, Your Honor. So
14 I'm going to raise this particular issue with respect to Akamatsu and a
15 common -- and the motivation to combine Akamatsu and Schima, which
16 they addressed Akamatsu; that's Ground 4.
17 Again, Your Honor, and I think that Your Honor's questions are
18 directed to the right issue. The motivation to combine is not to implant the
19 device at the apex of the heart. The motivation to combine is to provide a
20 device that has the suction end of the inflow tube inserted into the ventricle.
21 That's what's required in the claims, and that's what the motivation to
22 combine relates to with respect to Akamatsu and Schima for Ground 4.

1 My colleague Ms. Raghavan will address the questions directed to the
2 Bourque references.
3 But I wanted to remind Your Honors, what they are attempting to
4 distinguish the motivation to combine for, for Akamatsu, is outside the scope
5 of the claims. Now, they continuously refer to the Intelligent Bio-Systems
6 case. Your Honor, I know, Judge Tartal, I know Your Honor was involved
7 with the Axonics Medtronic case. I was as well. That was recent. The
8 Federal Circuit was very, very clear. You have -- the Patent Owner cannot
9 distinguish it on the basis of unclaimed features. Those are outside the
10 scope of the claims.
11 Here, they are stretching the motivation to combine to suggest that it
12 is not what we are arguing. The motivation to combine needs to be only for
13 the purpose of having the suction end of the inflow tube inserted into the
14 ventricle. That's the motivation to combine related to Akamatsu and
15 Schima. My colleague will address their specific criticisms of Borque. But
16 what they are doing is expressly not permitted by the Federal Circuit's
17 decision in Axonics Medtronic.
18 The next quick point I'd like to make is they started their argument
19 regarding their infringement contentions, and they spent a few minutes on
20 that, and I just want to make one point related to that.
21 They seem to concede, or at least acknowledge, that they have
22 accused a permanent magnet inside a rotor as meeting the requirement of
23 axially adjacent. But -- and they seem to concede this because what they did

1 was they pointed to it, and they said this was a mistake in our contentions.
2 That was not a mistake. It appears on pages 9 and 14 of their contentions at
3 1036, and it appears three times in their complaints. There is no mistake.
4 They recognize that their argument to distinguish the prior art directly
5 conflicts with their position in the district court.
6 Now, as to their argument for axially adjacent, what my colleague
7 here stood up and argued for on behalf of the Patent Owner was that what
8 we are doing is we are looking at it in the lateral direction. That is exactly
9 what they are doing. It is not what we are doing. So what they are -- what
10 we do is we take the longitudinal axis, and we find the location of the
11 permanent magnet and the rotor along that longitudinal axis.
12 What the Patent Owner does is the exact opposite. They find a point
13 on the central axis. They then draw a 90-degree line from that point on the
14 central axis to create another axis. And then they say, if you overlap on
15 those two -- on that axis, which is 90 degrees from the central axis, then you
16 are not axially aligned. So what they are doing is they are actually looking
17 at the lateral direction, and we are looking at the longitudinal direction.
18 JUDGE TARTAL: Counsel, can you address their argument that if
19 you look at what's disclosed in the patent -- and I believe it's Figure 2 in
20 particular -- it's consistent with what their argument is, which is axially
21 aligned means aligned along an axis in a direction where one follows the
22 other?

1 MS. WICKRAMASEKERA: We agree with that. We agree with
2 that. What I'm saying, Your Honor, is that when they are doing that with
3 respect to the patent, they're looking at a figure that's looking at a
4 longitudinal axis. Again, it's the axis. You need to look at the correct axis
5 in order to determine whether they are one next to each other or overlapping.
6 So, along the longitudinal axis, so an axis that's parallel to the central axis,
7 the prior art and the patent are all adjacent one another along that
8 longitudinal axis.
9 For purposes of distinguishing the prior art, what they're doing is
10 they're taking the central axis, they're drawing a line from a point on that
11 central axis up 90 degrees, and then they're saying, if you overlap in that
12 direction, then you are not axially adjacent. That's the wrong axis. They're
13 not looking at the correct axis.
14 So what we are doing is consistent with what's shown in the patent,
15 which is if you take a longitudinal axis, you can see that the permanent
16 magnet and the rotor are next to one another. They're not spaced apart.
17 There's no gap. They're next to each other. So we're consistent with what
18 they described. The patent is correct.
19 What they're saying, though, is they're flipping the axes in order to
20 distinguish the prior art. So they are actually looking at it in the wrong
21 direction. Did that answer Your Honor's question?
22 JUDGE TARTAL: I think so. Thank you.

1 MS. WICKRAMASEKERA: Okay. Thank you. The next point I
2 wanted to make addresses the Wampler reference.
3 Now, they say that we are mixing -- that we are mixing embodiments
4 in the Wampler reference. And this is for purposes of Ground 1, and they --
5 yeah, I don't know if this is an issue for Ground 2, but I'll address it for
6 Ground 1. They say that we were missing embodiments. And what they are
7 pointing to is, clearly, Wampler has two embodiments. And we have been
8 very clear that we were looking at one embodiment, but they say there needs
9 to be a motivation to combine.
10 Wampler is express about the features that are common between the
11 two embodiments, and it is express about using the features from one
12 embodiment for the other. For example, in Wampler, it says, in paragraph
13 80, that the pump casing is the same between the first and the second
14 embodiment. So the size is the same between the first and the second
15 embodiment according to Wampler's own express teachings.
16 And then, in paragraph 102, Wampler expressly states: various
17 elements from the Figures 1 through 8 embodiment can be used in the
18 Figures 11 through 20 embodiments. That is the express teaching from
19 Wampler in paragraph 102 of Wampler. And so, Wampler is express about
20 using the various features from one and applying them to the other. Without
21 a motivation to combine, it is a description issue. Wampler describes these
22 features for the first embodiment and then does not repeat them for the

1 second embodiment, though it makes clear that those features can be used in
2 the second embodiment.
3 And with that, Your Honor, I think I've addressed the issues that I'm
4 going to address for Grounds 1, 3, and 4. I'm going to turn it over to my
5 colleague Mr. Boyle.
6 MR. BOYLE: Thank you, Your Honor. Kevin Boyle for Petitioner.
7 Now, I was prepared to argue a few other points, but those didn't come up,
8 so I'm going to just address the motion to exclude from Patent Owner.
9 Patent Owner argues that Petitioner's public use evidence is
10 admissible. And this is a -- this is an argument that Patent Owner made at
11 Slide 44 of its demonstratives. But Your Honor hit the nail on the head with
12 your question earlier to Counsel on this issue. Patent Owner's argument
13 should be denied for the simple fact that Patent Owner fails to identify any
14 public use evidence. The exhibits that Patent Owner seeks to exclude are all
15 printed prior art publications and related testimony concerning the same.
16 For example, these are some of the exhibits Patent Owner wishes to
17 exclude: Exhibit 1015, 1038, 1046, and 1050. These are all published
18 journal articles and journal abstracts from peer-reviewed scientific journals.
19 These are quintessential printed publications. And Counsel said, a few
20 times, that their experts did not have an opportunity to respond to that
21 evidence. Well, Exhibit 1015, that was included in the petition, so plenty of
22 time for Patent Owner's experts to respond to something included in the
23 petition.

1 As another example, Patent Owner seeks to exclude Exhibit 1044,
2 which is a published prior art press release about the HeartWare device, but
3 Patent Owner made no argument that Exhibit 1044 wasn't published or that
4 it wasn't available to persons of skill in the art, or that it -- so it's not public
5 use evidence. It's a printed publication.
6 So, some context here helps explain why Patent Owner is trying to
7 exclude printed publications, and nearly all of this evidence relates to the
8 Ground 2 motivation to combine analysis. In its Patent Owner Response,
9 Patent Owner and its experts argued that as of the priority date, implanting
10 an LVAD at the apex to the heart would be, quote, impossible.
11 Now, my Co-Counsel addressed this argument at Slide 32. And then
12 Patent Owner's Counsel got up and said that their argument is more subtle
13 than that, right? So let's look at the subtlety of their argument. I'm referring
14 to Slide 32 of our demonstratives. And this is the quote from the Patent
15 Owner Response, quote, no clinical LVADS placed at the apex of the heart
16 as Petitioner's motivation requires, end quote.
17 We have another quote from Patent Owner's Mr. Leschinsky that said,
18 quote, It took over 10 years from the publication of Wampler (many more
19 from its priority date) and 5 years after the priority date of the '356 Patent
20 before an LVAD was actually made small enough to be implanted at the
21 apex of the heart.
22 And a similar quote from Dr. Gallegos, who's the expert that Patent
23 Owner's Counsel said, you know, has a busy clinical practice, he said, quote,

1 Contrary to Petitioner's contentions, as of the priority date, I was not aware
2 of any LVADS that were positioned at the apex of the heart, end quote.
3 JUDGE TARTAL: Counsel, for purposes of supporting your
4 motivation to combine, is there any relevance to whether and which devices
5 and all that was placed at the apex of the heart was publicly disclosed or
6 addressed in a way in which a person of ordinary skill in the art would have
7 been aware, as opposed to situations where, for example, something may
8 have been done in a clinical practice that was not known to the public at the
9 time?
10 MR. BOYLE: Yeah. So, Exhibits 1015 and Exhibit 1044 describe
11 the device's structure, and that the device's structure allowed for clinical
12 implantation at the apex of the heart.
13 JUDGE TARTAL: Thank you, Counsel.
14 MR. BOYLE: So that was in their Patent Owner Response. In our
15 reply to that argument, we identified what I just mentioned: numerous
16 contemporaneous printed prior art publications evidencing that LVADS had
17 been implanted in humans at the apex of the heart years before the priority
18 date. And so, that's why we cited at Slide 39 of our argument that Patent
19 Owner's expert's testimony is plainly inconsistent with the record and should
20 be disregarded. So that's the context for why Patent Owner is now seeking
21 to exclude this evidence, because it undermines their expert's opinions on
22 this matter.

1 So, referring to back to Slide 44 of Patent Owner's demonstratives,
2 which is when they outlined their arguments for why this evidence should be
3 excluded, there is four bullet points in Patent Owner's demonstrative Slide
4 44. And briefly, I'll just explain why each of those four bullets fail.
5 So, in the first bullet, Patent Owner concedes that the evidence we're
6 talking about here is rebuttal evidence, and it's rebuttal evidence that we rely
7 on to corroborate that persons of skill in the art would be motivated to make
8 the Ground 2 combination.
9 Because it's rebuttal evidence, as Patent Owner concedes in the first
10 point, its argument in the second bullet point fails that. And its argument in
11 the second bullet point is about Section 311(b). Section 311(b) states only
12 that the ground for the IPR must be based on prior art consisting of patents
13 or printed publications, but none of the exhibits they're trying to exclude are
14 the grounds for our -- are our grounds. So the Section 311(b) does not
15 provide a basis to exclude this evidence.
16 The third bullet point that Counsel has raised was that, well, the
17 devices described in the evidence that they're trying to exclude, those
18 devices are different devices than the grounds. Well, that also doesn't
19 provide a basis to exclude the evidence. And as an initial matter, many of
20 these devices are the same or fundamentally the same. Exhibits 1015 and
21 Exhibits 1044 describe the HeartWare HVAD, and that is the pump that
22 progressed from the Wampler pump. And that's not in dispute that it
23 progressed from that design.

1 So, even if these devices aren't the same as the grounds, that does not
2 matter because the evidence nevertheless shows the known options that were
3 available to persons of skill in the art. So it is, you know, well-settled law
4 under KSR that a motivation to combine depends on reasons to pursue
5 known options. So, Patent Owner can dispute that these options were
6 known, or that they would provide a basis for motivation, but that is not a
7 basis to exclude the evidence altogether.
8 And the fourth and final point, Patent Owner argued that this evidence
9 is irrelevant under Rules 401 and 403, but the evidence and related
10 testimony certainly sheds light as to the devices known at the time to persons
11 of skill in the art. And Patent Owner identified no danger of confusing the
12 issues or unfair prejudice or any other of the concerns under Rule 403,
13 especially here for a bench proceeding.
14 And finally, under Rule 702, even if this is public use evidence, which
15 I've already explained that it's not, Rule 702 would not -- Rule 702 would
16 plainly permit public use evidence. There's no dispute here that the experts
17 are qualified. Dr. Wieselthaler and Mr. Crosby are qualified experts. And
18 as experts, they may base their opinions on their experiences in the field
19 under Rule 702. So, in sum, none of the arguments they raise provide a
20 proper basis to exclude this evidence.
21 And unless there is any questions on that point, quickly, Your Honor,
22 there was a Slide 38 in Petitioner's demonstratives that we did not include in
23 our opening, but we plan to include it now, and that's the slide that they

1 object to. I believe Your Honor addressed this already at the beginning of
2 the hearing, so stop me if this is unnecessary, but I will just --
3 JUDGE TARTAL: Sure. Were you planning on using Slide 38?
4 MR. BOYLE: We are going to use it. My Co-Counsel is going to use
5 it.
6 JUDGE TARTAL: Well, we'll take their objections under
7 advisement, and you're welcome to make comments if you have something
8 in support of the notion that their objections are unfounded.
9 MR. BOYLE: Well, quickly, I think their main objection is that it's a
10 new argument based on new evidence and brief. It's not -- it's not
11 Petitioner's new argument. It's Patent Owner's new argument that is being
12 addressed.
13 Exhibit 1015, for context again, is an exhibit that was submitted with
14 the petition. They waited to -- until the filing of their sur-reply, to call
15 Exhibit 1015, quote, a press release. And this is via an argument they make
16 at Slide 29 at their demonstratives, Patent Owner's demonstratives. And the
17 evidence that we cited just contradicts that Exhibit 1015 is, quote, press
18 release. The deposition testimony that we cite shows it's not a press release.
19 It's a journal abstract from a peer-reviewed journal that was presented at a
20 conference in 2004.
21 So, unless there is any other questions, I will let my Co-Counsel
22 Saranya take over.
23 JUDGE TARTAL: Seeing no other questions, thank you, Counsel.

1 (Pause.)
2 JUDGE TARTAL: Can I ask a question? And this is off the -- off of
3 my recollection, but -- and it's sort of a tangential question, but I think, on
4 the ordinary level of ordinary skill in the art, I think Patent Owner may have
5 proposed experience of five years with compatible heart devices or
6 something to that extent, as opposed to medical devices more broadly. Does
7 Petitioner have a response to their proposal of level of ordinary skill in the
8 art, or any reason why you disagreed with what their assertion was, or why
9 that was relevant to any of the grounds that you're asserting?
10 MS. RAGHAVAN: Yes, Your Honor.
11 JUDGE TARTAL: Or your expert testimony?
12 MS. RAGHAVAN: I'm happy to address that as well. If we could
13 get our demonstratives back up at Slide 88.
14 JUDGE TARTAL: I apologize this comes up in reply, but you'll have
15 a chance to address it if you need to.
16 MS. RAGHAVAN: So, Slide 88 of our demonstratives, Your Honor,
17 answers your question regarding our position on the person of ordinary skill
18 in the art and the appropriate definition here. We believe that after much
19 briefing on this topic, there is actually no remaining dispute as to a
20 definition.
21 So, just to provide some context here, Petitioner proposed the
22 definition in the first bullet point here. So, as part of that, it looks like the

1 dispute revolves around developing implantable medical devices, and Your
2 Honors accepted or adopted that definition in the Institution Decision.
3 In their Patent Owner Response, the Patent Owner proposed further
4 tailoring that definition to include at least five years of experience designing
5 and developing implantable cardiac assist devices, in particular, not just
6 medical devices. But our understanding, based on their sur-reply at page 1,
7 is that Patent Owner no longer disputes whether either of the experts fall
8 under the -- either definition.
9 So there's no dispute as to whether either side's experts actually
10 qualify as experts in these proceedings. There is no dispute over whether the
11 cited prior art reflects the understanding of a POSA. There is no dispute as
12 to whether a motivation to combine is affected by the definition of a POSA.
13 So we think that, at bottom, this is just a definition that the parties are
14 arguing over as to just provide a bit of definition, but we are -- we agree with
15 the definition that the Board adopted in the Institution Decision, ultimately.
16 We also take the position that it's unnecessary to craft a narrow
17 description or a narrow definition, as Patent Owner has proposed here, to be
18 limited to at least five years of experience in developing implantable cardiac
19 assist devices, and we have two reasons for that. These are laid out in our
20 reply brief at page 2, I believe.
21 So, the first reason is that Patent Owner's POSA definition would
22 exclude Mr. Kevin Bourque, who is the author of Bourque-2001. And under
23 the Daiichi v. Apotex Federal Circuit case -- this is a 2007 decision -- if a

1 narrower -- if a definition fails to consider the educational level of active
2 workers in the field, then it is not the appropriate definition. There can be no
3 -- there can be no doubt that Mr. Bourque, who we've discussed at length at
4 this proceeding, throughout the papers, at the hearing today, is the -- is
5 someone of active level of understanding in the field.
6 The other point that we raised in our reply as well is that
7 Dr. Leschinsky previously opined in a similar case involving patents by the
8 same named inventor as the challenged patents here. So Dr. Werner Mohl
9 has several other patents. He expressed some opinions about what would be
10 the appropriate definition of a POSA in those cases, and there, he said just
11 two years of experience was sufficient. We asked him about this at cross-
12 examination, and he didn't really have a reasoning as to why he was
13 proposing a different definition here.
14 So those are, ultimately, our reasons for why we don't think it matters
15 substantively as to it -- why there remains no dispute as to why -- the
16 operative definition, but either way, we think that a narrower definition is
17 improper here.
18 JUDGE TARTAL: Okay. Thank you.
19 MS. RAGHAVAN: And with that, I'll move on to address some of
20 the points that Counsel raised with regard to Ground 2. And I'll back up and
21 address the Bourque-only portion of Ground 2 first because, as I said earlier,
22 if the Board agrees with our interpretation of axially aligned, then Bourque
23 alone is sufficient to invalidate the claims.

1 So, with that, let's turn to Slide 93 of our demonstratives. So Slide 93
2 has an excerpt of Figure 1 from one of the challenged patents. I heard
3 opposing Counsel mention that they were surprised, or they were confused
4 by the diagrammatic nature of the inflow tube as shown in Figure 1, but we
5 wanted to assure the Board that this is -- there is no surprise as to the bend in
6 the inflow tube 9 here.
7 If we look at the disclosures in the patent itself, and also as confirmed
8 by the Institution Decision, and by the Patent Owner's own expert, as shown
9 on Slide 93, you can see that the invention revolves around a catheter-based
10 system. And of course, a catheter is a flexible tube, and that's what is shown
11 in Figure 1.
12 And if we could go back to Slide 14, we pointed out earlier, as part of
13 Ground 2, that if Patent Owner is correct that Figure 2 shows axial
14 alignment, as they contended in their sur-reply, then, certainly, we can -- it's
15 appropriate for the definition or the interpretation of axially aligned to just
16 look at a portion of the tube. That's what Figure 2 does.
17 The Counsel then expressed some concern over how much of a
18 portion it was. They said perhaps it was a little portion, perhaps it was a
19 large portion. I don't think that the degree of the portionality matters. The
20 point is, the patent -- if they're correct, the Figure 2 is enough to show axial
21 alignment, and they only need to look at a portion of the inflow tube to
22 determine axial alignment, then certainly, we can just look at the -- of the

1 area of Bourque that is in this square, red -- this red square, and say that
2 portion is axially aligned.
3 Counsel also made a confusing remark that Bourque cannot -- is
4 totally perpendicular; the Bourque inflow subassembly is totally
5 perpendicular. So, I think what they're referring to is the fact that the green
6 rectangle sits on top of the pink impeller portion of Bourque, but just
7 common sense would dictate that -- and the flow -- and the flow diagrams
8 dictate as well that it's not just two elements sitting on top of each other.
9 Indeed, the blood flows through the tube and has to turn in at some point in
10 order to enter the rotor. And so, at least at that portion, it is axially aligned.
11 And as we talked about earlier, that is a fundamental and central feature of
12 all centrifugal pumps.
13 JUDGE TARTAL: If there's only a hole in a tube?
14 MS. RAGHAVAN: Repeat that, please.
15 JUDGE TARTAL: If there's only a hole in a tube that's otherwise
16 perpendicular, what portion of that tube is axially aligned, if that --
17 MS. RAGHAVAN: Well, Your Honor, I don't think it needs to be
18 that limited in this particular circumstance because the tube here, that is
19 shown here, actually does make a turn. So, if we look at the gray portion
20 behind the red arrows, there is some portion that actually turns, if I can
21 attempt to use the laser pointer here. This portion that turns down is a
22 reflection that there is a turn. It is not, in fact, just a hole in the tube.
23 JUDGE TARTAL: Okay.

1 MS. RAGHAVAN: Okay. Let's go to Slide 17 of our
2 demonstratives. So I want to get the motivation to combine story right here.
3 So there was a lot of repetition about the language in the Wampler reference,
4 as shown in Slide 17. And in particular, Counsel focused on the sentence
5 that we don't have highlighted here, but is towards the bottom of this
6 excerpt, that says, Good anatomic compatibility is possible since the pump
7 casing is compact, disc-shaped, fitting well between the apex of the heart
8 and the adjacent diaphragm.
9 Now, they said this language was purportedly cited several times. I
10 think they said 20 in their briefing. But this real -- only focusing on this
11 aspect of Wampler ignores the earlier disclosure that we -- that I talked
12 about in my opening remarks. First, that a centrifugal design of the pump
13 allows a considerable amount of flexibility during implantation. So, when
14 Counsel was talking about a dinner plate being, you know, inserted in at one
15 angle versus another angle, these are the type of flexibilities that Wampler is
16 readily contemplating.
17 And then the second part of that is the actual motivation to combine,
18 which is saying expressly that you can take out the flow-restrictive elbow
19 fitting. And so, concentrating just on one example of how this device can be
20 implanted is improper, and that's not our motivation to combine.
21 If we can take a look at one of the portions of the Institution Decision
22 that Counsel cited, let's go to the Institution Decision at pages 34 and 35,
23 please.

1 (Pause.)
2 So, if we go down to the last paragraph of page 34 of the Institution
3 Decision, it appeared that Counsel was referring to the quote from Wampler
4 that again talks about good anatomic compatibility is possible, fitting well
5 between the apex of the heart and the adjacent diaphragm.
6 But as the section continues -- and the Board acknowledges what
7 Petitioner's motivation to combine are, first of all, the Board correctly
8 acknowledged that Petitioner offered several reasons that these references
9 can be combined. Second of all, towards the end of that page, the bottom of
10 page 34, the Institution Decision correctly identifies that we have proposed
11 the motivation to be eliminating the flow-restrictive elbow.
12 And then I would like to point the Board's attention to the end of the
13 second paragraph on page 35. Actually, it's highlighted for us helpfully
14 here. So it says that there were a finite number, i.e., two options for LVAD
15 implantation. The device would be implanted at a preperitoneal pocket or at
16 the cardiac apex. So it is simply just false that we have proposed a
17 combination that relies on implantation at the apex of the heart, setting aside
18 even the fact that none, as Your Honors have correctly acknowledged, that
19 there is no requirement to do so in the claims.
20 Let's go to Slide 22 of our demonstratives, please. So there was much
21 discussion about the weight, volume, location of several of the pumps that
22 are discussed as part of our evidenced reasonable expectation of success.
23 But again, we would submit that weight, volume, size, et cetera, are not any

1 -- are not constraints that are expressed anywhere in the claims. And in fact,
2 this table shows the opposite of what Patent Owner contends. It shows that a
3 variety of different size of pumps were known in the art before the priority
4 date of the patent, and POSAs would have recognized that there were
5 multiple locations at which to implant these types of pumps.
6 And so, we can see here in the chart that we excerpted from Patent
7 Owner's response that certain pumps were placed in the pocket, others were
8 placed at the apex, and there are a variety of different sizes of pumps,
9 ranging from perhaps the HeartWare HVAD pump that could be implanted
10 at the apex, to all the way to the Bourque-2001 pump that could be
11 implanted in the pocket. And there is no dispute that the Bourque-2001
12 could have been implanted in the pocket, at least in some alignment.
13 I'd like to pull up an admission from Patent Owner's expert,
14 Mr. Leschinsky, his deposition transcript, Exhibit 1040, at page 38. And the
15 point that I would like to make for the Board here is that while pumps are
16 different sizes and can be implanted in different locations, it is also true that
17 humans are of different sizes. And so, this isn't a one patient fits all type of
18 equation.
19 We see here that Mr. Leschinsky says, if you're talking about a large
20 male patient, you could implant a larger implant, correct? And so, there are
21 smaller implants that would be suitable for pediatric uses, for example, in
22 children, and then there are larger implants that can be placed in different

1 locations of an adult male body, in this case, and their mechanical engineer
2 agrees, and I believe their surgeon expert agreed as well.
3 JUDGE TARTAL: You have about a minute left.
4 MS. RAGHAVAN: So I think that the last point I will make is that
5 this isn't about whether Mr. Bourque himself contemplated modifying his
6 pump or the design that was in Bourque-2001. This isn't about any one
7 company or Abbott or Thoratec or whoever in 2001. It's about a POSA
8 being able to combine the various teachings that were present in the prior
9 art. Bourque himself, actually, in the 1008 -- 1007 Exhibit at page 405 says
10 that he would -- he himself was aiming to make a compact design out of the
11 design of the pump that he disclosed in his patent.
12 So, with that, I will stop there and address any other questions in
13 follow up. Thank you.
14 JUDGE TARTAL: Thank you, Counsel. I don't think our Panel has
15 any additional questions for you at this time.
16 I have you at about seven minutes, we won't be absolute sticklers.
17 And then, if you could start just by briefly addressing or confirming whether
18 or not there is any dispute over the level of skill in the art that's relevant to
19 any of our determinations, that would be good.
20 MR. CAHILL: So, I would like to discuss that, and I plan to discuss
21 it.
22 JUDGE TARTAL: Good.
23 MR. CAHILL: I may wait a minute before I do.

1 JUDGE TARTAL: That's fine.
2 MR. CAHILL: But I'll make sure I set a minute to talk about it.
3 Anatomy has to matter. The first thing Counsel said when she got up
4 for rebuttal was to talk about motivation, specifically in the context of
5 Akamatsu, and to say that the motivation is inserting the suction end of the
6 inflow tube into the ventricle of the heart because that's what the claim says.
7 The claim says more than that.
8 So, the claim says the first step in Claim 1A of the '356 Patent is
9 delivering a heart assist pump device to the heart so that a suction end of the
10 inflow tube is inserted into the ventricle of the heart. So, this is a method for
11 assisting the blood circulation of a heart. It has to matter how the device is
12 sized and shaped to be deliverable to the heart so that there is an axial inflow
13 tube with all the characteristics that follow, and there are a lot of them. The
14 inflow tube has to be axially aligned. The rotor has to be -- has to have gap
15 between it and the housing that's filled by the blood.
16 There are a lot of things you have to do in this pump, and it has to be
17 deliverable to the heart so that that inflow tube that's axially aligned is
18 inserted into the ventricle. It can't be just any. You can't do this with a
19 lawnmower. You can't do it with a refrigerator. A person of ordinary skill
20 in the art would understand that there are some specific requirements, and a
21 lot of them have to do with the anatomy.
22 And one of the critical issues with the anatomy, as we've seen all over
23 the art, is that the apex of the heart, where the suction end of the inflow tube

1 goes, it's right next to the diaphragm. And a person of ordinary skill in the
2 art knows you have to deal with that.
3 And so, it's not the case that it can be any size. And I think it's also
4 not the case that you can just say make Bourque smaller. How? How do
5 you make Bourque smaller and still have it be meeting the elements of the
6 claims? How do you still have it? Do you still have magnetic suspension,
7 which seems to be the problem with size? And if you take it away, how do
8 you -- how do you then separate the rotor from the housing so there's always
9 a gap of blood between them?
10 Wampler, in his first embodiment, did it a different way, and he had
11 bearings that actually made contact. So, it's not simply that a person of
12 ordinary skill in the art would not see it as so easy as, well, if it's too big,
13 make it smaller. They would know that there are requirements in order to
14 deliver it to the heart and have it fit to the heart the way that it's recited, and
15 to meet all of the other configuration requirements of the claims. It's not so
16 simple as make it smaller, and it's not so simple as it doesn't matter what size
17 it is; the claims don't require size. It doesn't say in here how many cubic
18 centimeters. It just doesn't say.
19 But a person of ordinary skill in the art, meeting the active step in this
20 claim -- there are other claims that are system claims, and the language is
21 functional. It says deliverable to a heart, insertable into the ventricle. For
22 those claims, there has to be a presently existing capability of the pump to be
23 able to meet those requirements. And we think there's not that much

1 difference. But the anatomy has to matter, and how the pump interacts with
2 the patient has to matter.
3 So let's go to the person of ordinary skill in the art, Slide 51. So this
4 has our definition in it, and Counsel was exactly correct. The difference
5 between our definition as to theirs is we say implantable cardiac assist
6 devices, and they say implantable medical devices.
7 But the person of ordinary skill in the art, the person who is going to
8 be motivated, the person who is going to look at the statements in Bourque
9 about how it fits with anatomy, the statements in Wampler, how it fits with
10 the anatomy, that person has experience in the human circulatory system
11 anatomy and physiology and five years of experience of implanting medical
12 devices. They know that the anatomy drives how the pump is configured,
13 how big it is, and where it fits. They know that.
14 Now, we say implantable cardiac assist devices. We think it's clear
15 from the subject matter that we've been discussing today that that's what a
16 person of ordinary skill in the art is. I'm not sure why they say Mr. Bourque
17 would be outside this definition.
18 JUDGE TARTAL: Can you just clarify, is there -- what is the issue
19 that we need to resolve that turns on whether we adopt your proposed
20 construction or not? I understand if you were trying to exclude their experts
21 or had some other issue that this was tied to that would then require us to
22 make some further determination. I just want to be clear that --
23 MR. CAHILL: Yeah, we're --

1 JUDGE TARTAL: -- I understand sort of the context of what the
2 issues are that we as a Panel need to address because it has some effect on
3 how the case is determined.
4 MR. CAHILL: We do not seek to exclude anyone based on this
5 definition. This is the person through who's eyes we interpret the prior art,
6 and this is the person that the evidence for the motivation to combine applies
7 to. So it's how that person sees the evidence. We've obviously put
8 implantable medical devices because -- implantable cardiac assist devices,
9 because we think that the subject matter is specifically technical, and that
10 drives how that person would see the requirements for building this heart
11 assist pump device that's delivered to the heart with the axially aligned
12 inflow tube inserted into the ventricle.
13 JUDGE TARTAL: Understood.
14 MR. CAHILL: The last comment I'd like to make is I ran out of time
15 before I addressed any of the -- and it's my fault. I ran out of time before I
16 addressed the dependent claims, but we subscribe to Your Honor's theory
17 that we stand by comments in our Patent Owner's Response.
18 JUDGE TARTAL: Right, understood.
19 MR. CAHILL: Thank you.
20 JUDGE TARTAL: The arguments weren't waived, whether --
21 regardless of whether you addressed them in the sur-reply or not, is what
22 you're referring to, correct?
23 MR. CAHILL: Yes, sir.

1 JUDGE TARTAL: Understood.

2 MR. CAHILL: Thank you.

3 JUDGE TARTAL: Any additional questions from the Panel? I think
4 they are indicating they don't have any additional questions. So I will just
5 say thank you for appearing today and for answering our numerous
6 questions.

7 We would like to especially thank our LEAP practitioner, Mr. Boyle,
8 for appearing today and participating in oral argument. We certainly hope it
9 was a valuable experience.

10 We'll take the case under advisement and issue our decision in due
11 course. This hearing is adjourned.

12 (Whereupon, the above-entitled matter went off the record at 4:44
13 p.m.)

IPR2025-00096 (Patent 11,351,356 B2)
IPR2025-00112 (Patent 11,351,357 B2)
IPR2025-00113 (Patent 11,376,415 B2)
IPR2025-00114 (Patent 11,572,879 B2)
IPR2025-00115 (Patent 11,674,517 B2)
IPR2025-00116 (Patent 11,754,077 B1)

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