Trials@uspto.gov
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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ALIVECOR, INC.,
Petitioner

v.

APPLE, INC.,
Patent Owner.

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IPR2023-00948 (Patent 10,866,619 B2)
IPR2023-00949 (Patent 10,866,619 B2)

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Record of Oral Hearing
Held: September 25, 2024

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Before KEN B. BARRETT, SCOTT A. DANIELS, and
ROBERT L. KINDER, *Administrative Patent Judges*.

APPEARANCES:

ON BEHALF OF THE PETITIONER:

CHRISTOPHER TL DOUGLAS, ESQUIRE
J. RAVINDRA FERNANDO, ESQUIRE
ERIN BEATON, ESQUIRE
Alston & Bird, LLP
1120 South Tryon Street, Suite 300
Charlotte, North Carolina 28203-6818
(704) 444-1119

ON BEHALF OF THE PATENT OWNER:

JEREMY MONALDO, ESQUIRE
W. KARL RENNER, ESQUIRE
RYAN CHOWDHURY, ESQUIRE
Fish & Richardson, P.C.
1000 Maine Ave, SW, Suite 1000
Washington, DC 20024-3497
(202) 626-7717

ANDREW N. STEIN, ESQUIRE
Apple, Inc.
1 Apple Park Way
Cupertino, California 95014-0642
(669) 227-0688

The above-entitled matter came on for hearing on Wednesday, September 25, 2024, commencing at 9:00 a.m., 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

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3 JUDGE BARRETT: Good morning, everyone. We are on the record
4 in IPR 2023-00948 and IPR 2023-00949, captioned AliveCor, Incorporated
5 versus Apple, Incorporated. I am Judge Barrett, and with me on the bench
6 here in Alexandria is Judge Kinder, and appearing by video today is Judge
7 Daniels.
8 I'd like to start with the parties' appearances. Who do we have for
9 Petitioner today?
10 MR. DOUGLAS: Good morning, Your Honor. My name is
11 Christopher Douglas, on behalf of AliveCor, with the law firm of Alston &
12 Bird. With me today are my co-counsel, Ravi Fernando and Erin Beaton.
13 JUDGE BARRETT: Good morning. And for Patent Owner?
14 MR. MONALDO: Good morning, Your Honor. This is Jeremy
15 Monaldo, from Fish & Richardson, on behalf of Apple. I'm joined by my
16 colleagues, Karl Renner and Ryan Chowdhury. And I'm also joined by
17 Andrew Stein, from Apple.
18 JUDGE BARRETT: Good morning. All right, we do have two cases
19 to hear today. We set forth the procedure in our oral argument order, and to
20 remind everybody what that was, each side will have 60 minutes, total time,
21 to present arguments for both cases. Petitioner will go first, may reserve
22 time for rebuttal. And the expectation is Petitioner will address both cases
23 during that initial period. Then Patent Owner will have its opportunity to
24 respond, and may reserve time for surrebuttal, and also will be expected to
25 address both cases in that period. Then we have rebuttal arguments, and

1 then surrebuttal. Is that procedure acceptable to the parties? Okay, thank
2 you.
3 Speaking of two cases, there's a lot of issues that appear to apply to
4 both, but if there's anything case-specific, please make sure you flag that in
5 your arguments. We do have your demonstrative exhibits pulled up. We
6 have access to the record. For clarity of the transcript and to assist us in
7 following along, especially Judge Daniels, please, when you refer to a
8 demonstrative exhibit, please state the slide number, or if you're going to
9 refer to something that's in the record, something easily understandable,
10 exhibit number, page, column, line, whatever it takes.
11 These hearings are open to the public, and there is, in fact, an open
12 line, so people may be observing us as we speak. I don't expect any
13 confidential information to come out today, but if you anticipate that, just
14 pause, let me know, and we'll decide how to deal with that, going forward.
15 Any questions or concerns?
16 Petitioner?
17 MR. DOUGLAS: No, Your Honor.
18 JUDGE BARRETT: All right. Patent Owner?
19 MR. MONALDO: No, Your Honor.
20 JUDGE BARRETT: All right. Then with that, let us begin.
21 Petitioner, whenever you are ready. And as you approach, if you can
22 tell us how much time you'd like to reserve.
23 MR. DOUGLAS: Yes, Your Honor. We'd like to reserve ten
24 minutes. We also have copies of the, of our demonstratives. Would you like
25 paper copies?
26 JUDGE BARRETT: We don't need those.

1 MR. DOUGLAS: Okay.
2 JUDGE BARRETT: Thank you, though. The court reporter may,
3 later.
4 MR. DOUGLAS: Good morning, Your Honors. May it please the
5 Board, my name is Chris Douglas, on behalf of Petitioner AliveCor, with the
6 law firm of Alston & Bird. With me today are Ravi Fernando and Erin
7 Beaton.
8 Starting now on Slide 2, today I will be handling claim construction
9 and the *Kim* grounds. My colleague, Mr. Fernando will be handling the
10 remaining grounds. But before we get to the merits, Your Honors, I'd like to
11 turn to Slide 5, and talk about the challenged patent.
12 The purported invention of the '619 patent involves the using of
13 flexible conduit to quote, "form part of a seal that blocks or inhibits the
14 ingress of foreign debris, or contaminants, into the enclosure." And we see
15 that in the '619 patent, column 5, lines 53 through 60. We see similar
16 language in Slide 8 of Patent Owner's demonstratives.
17 And Your Honors, this is consistent with the prosecution history, as
18 we outlined in the petition. It was in the prosecution history that
19 sandwiching, along with this flexible conduit, and a seal positioned between
20 the button housing and a surface of the opening that obtained allowance.
21 And we see that, Exhibit 1002, Pages 172 and 173.
22 And this is important to keep in mind, Your Honors, as we move to
23 demonstrative 6, because what we see here on the demonstrative are
24 markings or annotations that show the elements that are in dispute today.
25 And what we see is, for the most part, the elements that are in dispute are not

1 what I just told you about, that was the purported invention, and they're not
2 what was found to overcome allowance.
3 So we'll talk about the enclosure today. We're going to talk about a
4 button assembly today. And at the end, in the *Chang* grounds, we'll talk
5 about the flexible conduit.
6 JUDGE DANIELS: Mr. Douglas?
7 MR. DOUGLAS: Yes.
8 JUDGE DANIELS: Let me -- I appreciate what you just said because
9 I think the question I'm going to ask you, you may get to later. But what I
10 wanted to ask at the start, so that we're clear when we get to the last
11 elements of the claims, the independent claims here, which are columns 11
12 and 16, I believe, am I correct that the last limitations, that have to do with
13 the sandwiching that you just discussed, are pretty much stated the same way
14 in all three of those independent claims?
15 MR. DOUGLAS: Yes. Yes, Your Honor. I think the parties have
16 addressed them similarly across all three cases.
17 JUDGE DANIELS: What -- I just want to be clear that we're all on
18 the same page of music, sheet of music. You're going to discuss some other
19 limitations first. But with respect to that limitation, in the '619 patent, there
20 are two basic limitations. One is where the flexible conduit is sandwiched
21 between a sealing surface, which if -- am I correct, that the sealing surface is
22 basically the bottom of the physical button?
23 MR. DOUGLAS: As it's shown in the '619 patent, it is shown as the
24 bottom of that button. And I believe --
25 JUDGE DANIELS: What --
26 MR. DOUGLAS: I believe we see that in Figure 2A.

1 JUDGE DANIELS: Yes. That's what I wanted to just confirm. So,
2 in Figure 2A, we see it between the seal and the sealing surface, which is the
3 bottom of the button. And then, the other limitation is, the other limitation
4 where it's shown between the sealing, the seal of the enclosure, is it best
5 represented -- is Figure 3D the best representation of that limitation?
6 I'm looking at -- I'm just -- I had pulled up this, in '619 patent, Figure
7 3D, which appears to show the conduit going underneath the seal, between
8 the body of the enclosure and the seal.
9 MR. DOUGLAS: Your Honor, we certainly point to Figure 3D in
10 that, and if you see that crosshatching, or exploded bit that it's pointing to,
11 maybe 309, that's what we point to in the petition as an example of
12 sandwiching. I think we'll also hear today that, on Figure 2A, and we see
13 this in Patent Owner's Demonstrative 8, we also see what appears to be a
14 sandwich as well. But, you know, I'll let them talk about that, that figure as
15 well. But I do think, in our petition, Your Honor, we pointed to 3D as
16 showing an example of the sandwich.
17 JUDGE DANIELS: Okay. I just wanted to be clear because we're
18 going to talk about a lot of different layers and things, and I want it to be
19 clear from the outset that sandwiching means, seems to be shown in the
20 limitation --
21 MR. DOUGLAS: Right.
22 JUDGE DANIELS: -- between the button and the seal, and in
23 between the enclosure and the seal as well.
24 MR. DOUGLAS: And, Your Honor, what we see is that sandwiching
25 is described in the '619 patent as a stack. And so, we see that, obviously in
26 Figure 3D. And, you know, but I'll say that, and at the same time say, for

1 the first three grounds, there's no dispute that we have a sandwich. So, in the
2 *Kim* grounds, and in the *Meyers-Jung* ground, as you'll hear when my
3 colleague gets up there, there is no dispute that those references show those,
4 that sandwiching limitation.
5 JUDGE DANIELS: Okay, thank you.
6 JUDGE BARRETT: Counsel, are you having any difficulty
7 understanding Judge Daniels?
8 MR. DOUGLAS: I'm not, Your Honor.
9 JUDGE BARRETT: Okay.
10 MR. DOUGLAS: He broke up a little bit, but I think it's just fine.
11 JUDGE BARRETT: Okay, thank you.
12 MR. DOUGLAS: Okay, excellent. So, what I'd like to start with,
13 Your Honors, is Slide, our demonstrative 8, and this is claim construction.
14 And so, turning now to Slide 9, as you're aware, the sole claim construction
15 dispute that has been explicitly raised by the parties has to do with the term,
16 biometric characteristic. The term biometric characteristic is only found in
17 Claim 1. And as we turn to Slide 10, AliveCor proposed in its petition that
18 biometric characteristic should be construed as a human characteristic that is
19 so distinctive and measurable that a particular human individual may be
20 identified.
21 And while I don't believe Your Honors reached a final, or certainly
22 not a final decision, but did not reach a decision in institution, you did state
23 that this construction was reasonable and consistent with the '619
24 specification. And that was in your decision at Page 10 in the 00948 matter.
25 And I point that out because most, if not all of the argument you're going to
26 hear today is solely about the specification. And so, Your Honors don't have

1 new evidence to look at here. Your Honors are just looking back to that
2 same language in the specification that you looked at in institution.
3 So I'd like to look at that language on our demonstrative, which is
4 Slide 14. And I think the two key passages for us to look at are column 4,
5 lines 51 through 59, and column 5, lines 9 through 14. And there's really
6 two concepts that are described in the '619 patent. First, the '619 patent talks
7 about, "biometric sensors used herein may be used to refer to a sensor that
8 can identify or determine a human physical characteristic." So this is the
9 first term to be aware of, human physical characteristic. You will not find
10 this in the claims.
11 And a human physical characteristic is defined as, or it says it could
12 vary widely. It could be fingerprints, palm veins, DNA, heart rate and blood
13 pressure. Later, in column 5, lines 9 through 14, we get to the claim term,
14 which is biometric characteristic, in quotes, and states, "as used herein, may
15 refer to human characteristics," so again back to that, what we were just
16 talking about, "that is so distinctive and measurable that a particular human
17 individual may be identified."
18 And the important piece here is, fingerprints and DNA are examples
19 of biometric characteristics. So, biometric characteristics is a smaller subset
20 of things, and is what Apple chose to recite in its claims.
21 And as we pointed out in our arguments, Apple decided to use quotes
22 around biometric characteristic, tells us, as used herein. And as we argued,
23 these are indicators of definitional language.
24 JUDGE BARRETT: Counsel, what about the permissive, “may”?
25 MR. DOUGLAS: I grant you, Your Honor, that obviously there's
26 permissive language used in this quote, but to me, and our position is, is that

1 Apple's decided to set off biometric characteristics with quotes, they've only
2 done that for a few terms here, and that that overcomes any question that the
3 permissive language is used. So, looking at this as a whole, seeing that
4 biometric characteristic is a subset, seeing that Apple's chosen to claim that
5 subset, and has chosen to use quotes and the phrase, as used herein, we
6 believe overcomes any question that is introduced by the "may" language.
7 JUDGE BARRETT: Thank you.
8 MR. DOUGLAS: So now I'd like to turn to the *Kim* ground, and
9 demonstrative 16. And the *Kim* ground includes both anticipation and
10 obviousness arguments, as you know, Your Honors. And if we move now to
11 Slide 17, please, we see the *Kim* reference. And I just want to start here.
12 The title of the *Kim* reference is an electronic device having a combined
13 button. Our discussion today is going to be about this combined button,
14 where this combined button can be placed, and what it looks like.
15 Moving now to Slide 18, the sole dispute in this claim is 1.c, as we've
16 noted here on our Slide 18. Again, as Judge Daniels and I spoke about
17 earlier, there's no dispute that there's the sandwich here. There's no dispute
18 that there's a flexible conduit. So, those items that Apple suggests are the
19 novel elements of this invention are absolutely met by *Kim*.
20 JUDGE DANIELS: Mr. Douglas?
21 MR. DOUGLAS: Yes, Your Honor.
22 JUDGE DANIELS: Can you just tell us what, explain to us what the,
23 what's meant by combined button?
24 MR. DOUGLAS: Yes. Absolutely, Your Honor. So, the combined
25 button in *Kim*, and maybe if we turn to Slide 27, it would be best to explain
26 it. But in our view, the combined button is the button that *Kim* is talking

1 about using. And it starts in the background, and says, we have these, we
2 have phones that need more screen area, Your Honor, and they need -- so
3 what do we need to do? We need to develop a button that doesn't take up
4 screen space. And this -- and in the *Kim* reference, this is the combined
5 button.
6 And so *Kim* tells us, in Figures 7 and 18, that you can have this
7 combined button that includes both a physical button and a virtual button.
8 And that button can be placed in a number of different locations. And so
9 first, as you're reading through *Kim* you see, Figures 7 and 18 show a variety
10 of different placements of the combined button. And maybe since I'm there,
11 we'll have a look at that, and that's at Slide 34, and that's at column 17, lines
12 23 through 30, Your Honors.
13 And this is -- again, in the order of *Kim,* we're starting now on column
14 17 -- or I'm sorry, yes, column 17, and we see that Figures 7 and 18 show
15 examples of a combined button located on the front surface or the side
16 surface of the device. In Figure 18, the combined button is located on the
17 lateral surface, or back surface of the electronic device, and again, just
18 reiterates that this button can be anywhere.
19 And so when we look at Figures 7 and 18, we see a variety of
20 different examples of where that same button can be placed. Directly
21 following Figures 7 and 18, we see examples of buttons that make up a
22 combined button. Of particular interest in our case is the Figure 10 button,
23 which is again a combined button. And what we see there is a cross section,
24 and what *Kim* is implying is that this button, and suggesting, as we see here,
25 that the combined button may be located either of these places, is that when

1 you get to that section of *Kim*, you see the combined button that can be
2 placed in either of these locations.
3 JUDGE DANIELS: Mr. Douglas, I think you've gone into an area
4 which I know we're going to discuss with both parties, and I just wanted it to
5 be clear that your position, as I understand it, is -- and looking in column 17,
6 and I'm looking at *Kim*, column 17, it talks about Figures 7 and 18 show
7 examples of the combined button. Figure 7 show it on the front surface, and
8 Figure 18 shows it on the side surface. And it's kind of a different looking
9 mechanical structure. It sticks out on the side in Figure 18.
10 But it seems, it does seem to be talking about here that these are just
11 different placements for Figures 7 and 18. How are you tying Figure 10 to
12 this? Is it just the context of *Kim*?
13 MR. DOUGLAS: I think the first and most important is the context of
14 *Kim*. We have a reference that is talking about combined buttons. It starts
15 telling us where these combined buttons could be. And then it provides us
16 the examples of the buttons themselves. I think then we take a step back to
17 our -- or forward to our demonstrative 37, and when we look at -- I'm sorry,
18 27. When we look at *Kim,* and we look at Figure 18, we see that Figure 18
19 has all of the same elements that we see in the button at Figure 10. And so,
20 I'm happy to go to Figure 18 now, if that would be helpful.
21 I'm sorry, could we go to demonstrative 29?
22 And so now, if we look, Your Honor, at column 19, lines 13 through
23 30, when we're talking about the combined button that is in Figure 18, we
24 see that the explicit disclosure in Figure 18 is that the combined button is
25 located on the lateral surface of the electronic device. So I think that's an
26 important point. The power button, which is the combined button, includes

1 a physical button, 764a, and a virtual button, 764b. Those are, that's entirely
2 consistent with our button in Figure 10.
3 When the display, 710 is extended around the bottom of the lateral
4 surface, e.g. close to the back surface of the electronic device, the physical
5 button, 764a may be located on the display, 710, and the virtual button, 764b
6 may surround the physical button, 764a and be located on the display. So
7 again we now have a display surface all around the button, which is entirely
8 consistent with Figure 10. And then we see that the power button really
9 could include multiple shapes, ovals, rectangles.
10 And then, you know, sort of, I think the last important point, although
11 maybe we're not quite to this point yet, this button also has the fingerprint
12 sensor underneath the physical button. And so, we have all of the hallmarks
13 of the Figure 10 button described here in the Figure 18 location, in addition
14 to, as we've already walked through *Kim* telling us these buttons can be
15 placed here, there, everywhere, front, back, sides, all of the different walls.
16 JUDGE DANIELS: So, it's your contention that, for example, the --
17 all right, let's just use the word embodiment. The embodiment in Figure 9,
18 the embodiment in Figure -- which is different from the embodiment in
19 Figure 10, and then the embodiment in Figure 11, for example, all of those
20 could be -- your position is that the context of *Kim* is that all of those are
21 combined buttons, and could be situated anywhere on the device?
22 MR. DOUGLAS: That's absolutely our position. There's nothing in
23 *Kim* that says that those buttons cannot be used in the Figure 18 position or
24 Figure 17. And I think, as you look through *Kim*, there's just, each of those
25 buttons are enabled, shown, we see the cross section. Each of those buttons,

1 which are combined buttons, as shown by -- as described in Figure 18 can be
2 put in that exact placement.
3 JUDGE DANIELS: Now, we do run into -- we were discussing this
4 very issue in our conference for this case. You do run into the fact that these
5 are different embodiments. And as Patent Owner has raised the issue that
6 we can't just pick and choose from among different embodiments. So, how
7 would we draw the line, how do we draw the line between, under 102 at
8 least, picking and choosing from these different embodiments and reading
9 the context, which isn't expressed here, that these might be, you know, all
10 kind of interchangeable on different parts of the body of the phone?
11 MR. DOUGLAS: Well, it's certainly our position, Your Honor, that it
12 is express, and *Kim* is express that the button locations are interchangeable.
13 And we have testimony from Dr. Berger to that point. But going back to
14 your question about embodiments, it would be my position that it would be
15 impermissible, if we were mixing the button of Claim 9 -- or I'm sorry, the
16 button of Figure 9, excuse me, and the button of Figure 10. I believe those
17 are two different buttons.
18 But what in my view is not impermissible is taking a disclosure that
19 tells us, combined buttons, and this is where you put the combined buttons,
20 and let me tell you what the combined buttons are. To me, that is not two
21 different embodiments. That is just the drafter telling us, look, here's -- here,
22 where you put buttons, here's where I want to put buttons, and here are the
23 buttons you can choose.
24 And in our reply, we cited the *Chamberlain* case, because we think
25 that, to the extent that you were concerned about mixing embodiments, I
26 think with the disclosure of *Kim*, you would -- to me, you would want to see

1 that these buttons can be placed here, in any of the locations. And that case
2 tells you that even if you were to find these were different embodiments,
3 which I don't believe that they are, you would find yourself, Your Honor,
4 perfectly fine saying that there's enough context here, significant context
5 here that would tell you that that's where you put the button on Figure 10, in
6 the position of Figure 18.
7 JUDGE DANIELS: Thank you. That was a great answer.
8 MR. DOUGLAS: And so, Your Honors, I apologize. I've jumped
9 around just a little bit, but I'd like to jump back to Slide 22, just ever so
10 quickly, to point out -- I'm sorry, let's start all the way back at 20. Just very
11 quickly, 1.a of the claims is not disputed. We pointed out here that it is an
12 enclosure, having an enclosed volume and an opening formed in the
13 sidewall, and just want to point out that on Pages 14 and 15 of the petition,
14 we did walk through, you know, both that *Kim* discloses this, and it would
15 be obvious to move buttons around. We see that again in Pages 14 and 15,
16 and Dr. Berger's declaration, at 110.
17 Moving now to Slide 22, I've already touched on this, walking
18 through Figure 18, but I thought it was really important, is when we look at
19 Figure 18, I just walked you through the text describing it, but we have the
20 physical button, we have the virtual button, 764a and 764b. We have the
21 display, 725. And I think what you're going to hear later is that there's some
22 layers missing from this figure. And I'll certainly address that on rebuttal, if
23 that comes up, but I just want to note that the text that I read to you, from
24 our Slide 29, makes clear that the display wraps around. And so we still
25 have display. We have a virtual button that surrounds the physical button.
26 We have all the hallmarks of Figure 10.

1 At Slide 27, I just want to quickly point out another couple of points
2 from Dr. Berger's declaration, where he points out areas where, for example,
3 a power button, located on the lateral surface of an electronic device might
4 also be the combined button. And that's at 17, 10 through 12 of *Kim*. And
5 he also points out that although the home button is described as an example
6 of the combined button in this embodiment, the combined button is not
7 limited to the home button. So any concerns that the phrase, home button is
8 somehow limiting, Dr. Berger addresses.
9 I want to look at Slide 33. I think this is important, is that, in reading
10 the POR, it seems like Patent Owner believes there's a smoking gun from the
11 deposition of Dr. Berger in which he admits Figure 10 and 18 are different
12 embodiments. I'd ask you to read the testimony, and I have it here, at Pages
13 65 through 68. But he's actually asked about Figures 7 and 18, and he tells
14 us, so I think the button could be placed -- I think it's maybe the same
15 button, just shown in a different figure. And *Kim* makes clear that the same
16 button could be in other locations, other than the front.
17 But then he gets asked a question, a technical expert, you'll agree with
18 me that Figure 18 is a different embodiment than Figure 7, correct? And he
19 says, I think Figure 18 shows the button in a different embodiment. I think
20 when you read that in context, he's saying, absolutely, that's a different
21 location, the button is one place and now it's in another. And I think that
22 squares with my answer to the question that Judge Daniels asked.
23 JUDGE DANIELS: Mr. Douglas?
24 MR. DOUGLAS: Yes.
25 JUDGE DANIELS: Is it -- would it be worthwhile, do we need to go
26 through combined button?

1 MR. DOUGLAS: I don't believe so. I'm sorry. I don't believe so,
2 Your Honor. I think the combined button is a term that's used in *Kim*, and is
3 clear to describe this button that has both the physical and virtual buttons,
4 and is placed in this screen area, as we see both on the front and the side of
5 the device.
6 JUDGE KINDER: This is Judge Kinder. Along with that question,
7 was there any evidence about -- I believe *Kim* originated from a Korean
8 application?
9 MR. DOUGLAS: Yes.
10 JUDGE KINDER: Was there any translations, or anything submitted
11 of that original application in this case?
12 MR. DOUGLAS: Yes. It was submitted, I believe Exhibit 1022,
13 Your Honor, but --
14 JUDGE KINDER: Okay.
15 MR. DOUGLAS: -- I'll just -- let me just quickly look. We --
16 JUDGE KINDER: So I'm just curious if there was something lost in
17 translation. Again, the prior art is the prior art, not relying upon the Korean
18 application as the prior art, but we certainly could rely upon those
19 understanding of what combined button may mean.
20 MR. DOUGLAS: Yes. Those translations were submitted as 1022
21 and 1023, and we'll certainly look at those and provide an answer for you,
22 Judge Kinder.
23 Turning quickly to Slide 36, Apple also attacks our obviousness
24 ground. And again, I just want to quickly point out that the main attack here
25 is, or appears to be that it would be very difficult to take the button of Figure

1 10 and move it to Figure 18. And I think we see that in their expert
2 declaration from paragraphs 58 to about 68, and certainly in their POR.
3 I want to just take a moment and note that *Kim* tells us that a
4 combined button, with a fingerprint sensor, with a physical button and
5 virtual button, with glass surrounding it, in Figure 18, can be, and is actually
6 done in *Kim.* So, any dispute that this is somehow outside the confines of
7 *Kim,* I think should be disregarded. Second, during deposition and now at
8 Slide 37, we showed Dr. Anthony the disclosures of the '619 patent. Well
9 the '619 patent states, or discloses that its button can freely be moved to
10 different locations, from a watch crown to different locations.
11 And when asked how to square that with his other testimony, his
12 answer is here that a POSITA would be familiar with different
13 manufacturing processing steps. And so again, I ask Your Honors to
14 consider that when you're considering his testimony, that somehow *Kim*,
15 which shows a button on the sidewall, doesn't -- is not enough, but somehow
16 the '619 patent is plenty when it just, when a POSITA would know how to
17 move its button around.
18 And last argument, Your Honors, is at Slide 40, Apple is taking a --
19 looking at Slide 40, the last argument that we see from Apple are that there
20 are additional sensors. And these are -- in our Slide 40, they have this
21 annotation, 240p1, which we believe is incorrect, and you'll see that in our
22 papers. But there's additional sensors, that they're in red. And again, Your
23 Honors, we ask you to disregard this argument because the claim requires a
24 biometric sensor underneath an input member, it's a comprising claim. And
25 there's no dispute that the red biometric sensor is below the input member,
26 and the other sensors just are of no moment.

1 JUDGE DANIELS: So talking about the sensors that surround the
2 outer, that surround the button, are the ones that we shouldn't, we don't need
3 to consider?
4 MR. DOUGLAS: That's right, Your Honor. I mean, they're certainly
5 there in our papers. We argue that they are optional. We believe that's
6 correct. But I don't even think you need to get there. I think that *Kim* tells
7 us that it has additional sensors, and that's great. But there's no dispute that
8 it does have a single sensor, a biometric sensor, that is underneath the input
9 member, which is all the claim requires.
10 JUDGE DANIELS: And Figure 18, even though Figure 18 doesn't
11 show one, it said it there in column 19, I think.
12 MR. DOUGLAS: That's absolutely right, Your Honor.
13 JUDGE DANIELS: Thanks.
14 MR. DOUGLAS: And then, turning now to Slide 49 quickly, we --
15 Claim 4 is also in dispute. And Claim 4 says, wherein the seal is
16 overmolded around the portion of a flexible conduit. And in Slide 50, we
17 see our petition. In our petition, we outlined on Pages 40 through 41, that
18 the POSITA would have overmolded the seal so as to enhance the quality of
19 the seal, rendering the claim obviousness -- obvious. Obviousness is the
20 question before you.
21 And you could reach obviousness of Claim 4 based on the testimony
22 of Dr. Berger, supported by the supporting references he cites within his
23 declaration to corroborate his testimony. Overmolding is not new. It is old
24 and well known. And you have everything you need to perform the
25 reasoned analysis with evidentiary support.

1 To touch on that quickly, turning now to Slide 53, Dr. Berger
2 references his background section explicitly in his declaration, and he points
3 to the *Wagman* reference. And the *Wagman* reference discloses that
4 components can be sealed by an overmolded portion, 2330 so that they're
5 liquid-tight. In Slide 54, he points to the *Dave* reference, and again points to
6 overmolding components, similar to what we have here.
7 And finally, Dr. Berger points to the *Polany* reference, that makes
8 clear that if you're sealing a device, like what we're sealing here,
9 overmolding is certainly one of the options. And he's provided you the
10 reason why you'd choose that one over the others, because of its quality of
11 seal.
12 JUDGE DANIELS: And that would relate to -- that doesn't change
13 the order of the stack, as it were, correct, if it is overmolded or some other
14 process?
15 MR. DOUGLAS: It certainly does not, Your Honor. And again,
16 there's no dispute that the stack is present in *Kim*, and it's our position it
17 would be obvious to overmold that seal in *Kim* in the same arrangement.
18 And so, unless there's other -- oh I'm sorry, Your Honor.
19 JUDGE DANIELS: No, thank you. Please go on.
20 MR. DOUGLAS: If there no other questions of *Kim,* I'm going to
21 turn over to my colleague, Mr. Fernando.
22 MR. FERNANDO: Good morning, Your Honors, and may it please
23 the Board. My name is Ravi Fernando, and we will start today with Ground
24 3, which is the *Jung-Meyers* ground. So, if we turn to Slide 62, we see here
25 Figure 10 of *Jung*, which is Exhibit 1005. And this figure shows the
26 waterproof key structure in *Jung*.

1 And so there's a couple of components to note here. The first is the
2 flexible PCB, which is in teal. The next is the bracket, 40, in pink. And the
3 next is silicone rubber, in green, which is component 50. Now the important
4 thing is that *Jung* tells us that the bracket, 40 and the silicone rubber, 50 are
5 combined through an insert injection process. And that's in paragraph 97 of
6 *Jung*. And we'll get to that concept a little later, under Claim 4, but that is
7 explicitly disclosed in *Jung* itself.
8 And what that combination creates is a component, 60, and you can
9 see the number at the top with a bracket on it, and it goes around both 50 and
10 40. And what 60 is called is an insert-injected product. And so that is the
11 combination of components 40 and 50.
12 We also see here in Figure 10 that when these are combined, the
13 flexible PCB is sandwiched on top of the seal that's shown in green, and the
14 sandwich structure is shown well here in Figure 5 -- in Figure 10 as well as
15 in Figure 5 of the *Jung* reference.
16 So if we turn to Slide 64, here we see Figure 1 of the *Meyers*
17 reference, which shows *Meyers*' button assembly. And the components to
18 note here are the button, 104 in purple, the fingerprint recognition sensor,
19 102 in red, dome switch, 118 in yellow, and a button support plate, 122,
20 which is shown in blue.
21 If we turn to Slide 90, and I apologize for jumping around a bit, what's
22 shown on Slide 90 is the combination that AliveCor's presenting. AliveCor
23 contends that *Jung*'s waterproof key structure would have been implemented
24 in *Meyers*' button assembly. You see there's a red rectangle under structure
25 122, that would show where AliveCor said that *Jung*'s waterproof key
26 structure would have gone. And that's explained by AliveCor's expert.

1 If we turn to Slide 65, we can talk about the disputes between the
2 parties, and really there's only two, under Ground 3. The first is that Apple
3 disputes that there would have been a motivation to combine, and then the
4 second is that Apple disputes that elements 1.a and 1.c are met. But really,
5 that would reduce to a single dispute as to whether the combined button
6 structure would have been implemented in a sidewall. If we turn to Slide 66
7 --
8 JUDGE DANIELS: Mr. Fernando?
9 MR. FERNANDO: Yes, Your Honor.
10 JUDGE DANIELS: I'm looking at, I'm back at your Slide 90. So,
11 your contention is that this, the waterproof structure from *Jung* would go
12 into *Meyers* here, and make it waterproof. Is that basically the idea?
13 MR. FERNANDO: Your Honor, we would say that provides
14 additional waterproofing. There is some waterproofing disclosed in *Meyers*,
15 but this would provide additional waterproofing within the button assembly.
16 JUDGE DANIELS: So why would it need more, just to make it
17 better?
18 MR. FERNANDO: Yes, Your Honor. I think that's really part of the
19 nature of fingerprint sensors. And this is something that Dr. Berger
20 explains, right, because fingerprint sensors are necessarily interacting with
21 fingers, and fingers usually have liquid, oil, dust, dirt. Any additional
22 waterproofing is beneficial to the structure, because it can prevent ingress of
23 those contaminants.
24 JUDGE DANIELS: Thank you.
25 MR. FERNANDO: Of course, Your Honor. If we could turn to Slide
26 66, please, we see here some of the testimony from Dr. Berger, where he

1 states that *Jung* discloses a biometric sensor, such as a fingerprint sensor, but
2 it does not disclose the structure of its fingerprint sensor. And to supply this
3 teaching, a POSITA would have turned to *Meyers*, which expressly discloses
4 the structure of a fingerprint button assembly.
5 If we turn to Slide 67, we see here that Dr. Berger further explained
6 his declaration in his deposition. And this is Pages 124 and 119 to 120 of
7 Dr. Berger's deposition. And he says that *Jung* provides an understanding of
8 how to create a waterproof seal for a button, a multicomponent button. And
9 then, Dr. Berger explained, a POSITA would have turned to *Meyers*, which
10 provides exactly that, the button, a multicomponent button, a multifunction
11 button, particularly one that includes a fingerprint sensor, and would fit
12 nicely and neatly into the structure of *Jung*.
13 And earlier, Your Honor, I referenced testimony from Dr. Berger
14 about preventing ingress of contaminants, and that can be found in
15 paragraph 242 of Dr. Berger's declaration. And that testimony about further
16 preventing ingress of contaminants further would have motivated a POSITA
17 to combine these structures.
18 If we turn to Slide 71, here we can see Apple's argument to the
19 contrary. Apple has said that because *Jung* doesn't contemplate any button
20 assembly with an incorporated fingerprint sensor, a POSITA wouldn't have
21 combined them, but that's simply not the case.
22 If we turn to Slide 68, we see here Figure 2 of *Jung*, as well as
23 paragraph 60 of *Jung*, excerpted. And we can see here that *Jung* discloses a
24 sensor module, 240 in yellow, and that sensor module includes a biometric
25 sensor, 240i, in teal. And underneath that, in paragraph 60, we see that *Jung*

1 states that the sensor module, 240 may include, for example, a fingerprint
2 sensor.
3 So based on this, a POSITA would have been motivated to use
4 *Meyers'* button assembly, which included a fingerprint sensor. Using that
5 assembly would have saved costs and promoted an efficient use of limited
6 space, and at the same time, *Meyers*' button assembly would have benefited
7 from the additional waterproofing provided by *Jung*.
8 If we turn to Slide 73, another argument that Apple has advanced is
9 one that is a variation of one you heard before, on *Kim*. Basically, Apple has
10 said that a POSITA wouldn't have combined these references because of
11 some challenges relating to manufacturing. But again, if we turn to Slide 82,
12 we see here some testimony that we saw earlier from Dr. Anthony. And
13 earlier, I think we just saw the answer, but here we can see the question
14 above it as well, Pages 57 to 60 of his testimony.
15 And at the end of his answer, Dr. Anthony admits that a POSITA
16 would have been familiar with different manufacturing processing steps.
17 This undermines Apple's suggestion that there would have been some sort of
18 insurmountable manufacturing disadvantages that faced a POSITA.
19 If we turn to Slide 73, the other point to note here is that Apple's
20 argument about these manufacturing disadvantages is also uncorroborated.
21 So you can see here that Apple cites to paragraphs 92 through 95 of Dr.
22 Anthony's declaration. And if you look at those paragraphs, they cite by
23 reference to paragraph 74 through 76 as discussing some challenges
24 associated with fingerprint assemblies. If you look at those paragraphs 74
25 through 76, you do find Dr. Anthony addressing these purported challenges,
26 but you don't find any cites to documentary evidence that would corroborate

1 his testimony. When coupled with his deposition admissions, it's clear that
2 Dr. Anthony's testimony about these manufacturing challenges doesn't
3 deserve any weight. If we turn to Slide --
4 JUDGE DANIELS: Mr. Fernando?
5 MR. FERNANDO: Yes, Your Honor.
6 JUDGE DANIELS: What -- so, if I'm understanding this, your
7 combination correctly, first you're combining the more waterproof switch,
8 apparently, of *Jung* with *Meyers*, but then you're, and then you're also saying
9 that well, you know, a person of ordinary skill in the art would use the same,
10 would use the button in *Meyers*, where because it's not shown in *Jung*. Is
11 that correct?
12 MR. FERNANDO: I believe that's correct, Your Honor. It's -- each
13 reference reinforces the other, right. The POSITA, starting with *Jung*,
14 would have turned to *Meyers*, and then looking at *Meyers*, would have seen
15 why that worked so well in the referenced *Jung*. So both of these
16 motivations sort of reinforce each other.
17 JUDGE DANIELS: I don't understand why, looking at *Jung*, you'd
18 look at *Meyers*. Can you explain that again?
19 MR. FERNANDO: Of course, Your Honor. So, if we turn back to
20 Slide 68, so here -- again this is *Jung*. And so, *Jung*'s Figure 2 specifically
21 discloses a biometric sensor, and says that that -- within a sensor module,
22 and it says that the sensor module may include a fingerprint sensor. And so,
23 *Meyers* teaches a fingerprint sensor, that is also incorporated into a button
24 assembly.
25 So, our position is that a POSITA would have seen that, and would
26 have known that using a combined button, fingerprint assembly, would have

1 saved costs and been a more efficient use of space, in addition to getting the
2 benefits of *Jung*'s waterproofing.
3 JUDGE DANIELS: Okay. And Dr. Berger's, has some support for
4 this?
5 MR. FERNANDO: Yes, Your Honor, for example, in paragraphs 175
6 through 176, and this is also discussed in the petition, I believe Pages 50 to
7 51 and 32.
8 JUDGE DANIELS: And my concern with this argument, from your
9 perspective, is that I guess -- you know, this goes to the question of, I
10 understand that these could potentially be combined, but I'm not quite sure
11 I'm -- you know, I'm not quite sure I'm seeing a specific reason why you
12 would look to *Meyers* to put in here, but I'll have to look at Dr. Berger's
13 testimony as well.
14 MR. FERNANDO: And in particular, Your Honor, I would ask that
15 you look at the paragraphs I mentioned as well as, I believe, paragraphs 242
16 through 244. And I will let you know if that's not right, but those are
17 paragraphs that discuss these challenges, that a POSITA would have realized
18 that *Meyers* is going to solve.
19 JUDGE DANIELS: Awesome, thank you.
20 MR. FERNANDO: So, if we turn to Slide 74, another argument that
21 Apple may advance today is that the key waterproof structure of *Jung* should
22 actually go in a different place. They've suggested it should go above the
23 structure 122 as opposed to below it. But the problem with that argument is
24 that the *Jung* structure, in the red box, actually shows a bent key portion,
25 where the flexible PCB is poking up. And so the reason that component is
26 bent is so that it can be inserted under the bottom surface of a button

1 assembly, for example, *Meyers'* button support plate, while still allowing
2 attachment to electronics that are higher up.
3 And making this electrical connection would have been within the
4 knowledge of a POSITA. In fact, in Pages 156 through 62 of his deposition,
5 Dr. Anthony, Apple's expert conceded that a POSITA would have been
6 familiar with multiple ways to electrically connect components within an
7 electrical device.
8 We can turn to element 1.a, and Slide 76. So, element 1.a discloses,
9 or recites an enclosure having an enclosed volume and an opening formed in
10 a sidewall. And *Jung* plainly discloses this. Here is Figure 4A, altered of
11 *Jung*, which shows that electronic device. And if we turn to Slide 77, we see
12 paragraph 37 of *Jung*, which discloses, an electronic device according to the
13 present disclosure may be a device including a wristwatch, among a variety
14 of devices.
15 And of course, a wristwatch is a device that's well known to have a
16 sidewall. In fact, in column 6, lines 30 through 36 of the '619 patent, it
17 states that a button assembly can be positioned against a sidewall of a watch.
18 And the '619 patent never describes any sort of difficulties or solutions for
19 locating a button assembly in a sidewall.
20 If we turn to paragraph 252 of Dr. Berger's declaration, on Slide 78,
21 here we see Dr. Berger's testimony regarding the same, where he says that a
22 POSITA would have understood that the key waterproof structure of *Jung*
23 can be applied to any of the electronic devices disclosed in paragraph 37.
24 If we turn to Slide 80, now Apple's argument is that the resultant
25 button assembly wouldn't have been positioned in the sidewall, but that
26 argument deserves no credence for the reasons we've been talking about.

1 There's plenty of disclosure in the *Jung* reference suggesting that a POSITA
2 would have placed this button assembly in a sidewall.
3 And if we turn to Slide 81, AliveCor also made this clear in its
4 petition. Here's Pages 55 to 56, where AliveCor explained that *Jung* renders
5 obvious that the enclosure has an opening formed in a sidewall, because it
6 states that other keys for performing various functions, rather than a home
7 key, may be applied to the key waterproof structure of the present
8 disclosure.
9 If we turn to Slide 82 --
10 JUDGE DANIELS: That doesn't say it's in the sidewall.
11 MR. FERNANDO: If we go back, please, to Slide 81. So the specific
12 portion here does not state -- well it states, it renders obvious that an
13 enclosure has an opening formed in a sidewall. And so, I think there's other
14 pages of the petition that specifically demonstrate that *Jung* renders obvious
15 that its disclosure, or that its key waterproof structure would be placed in
16 that sidewall.
17 If we turn to Slide 82 please, again Apple has advanced an argument
18 that somehow it would have been tough to implement *Jung*'s key structure in
19 a sidewall because of some manufacturing challenges. But again, we'd ask
20 you to, Your Honors, to return to this testimony from Dr. Anthony, where he
21 acknowledges that a POSITA would have understood how to implement
22 various buttons in various configurations, as we see at the beginning of his
23 answer, shown here.
24 If we turn to Slide 91, I'd like to also address Claim 4. And one of the
25 big things here is that *Jung* discloses that a key waterproof structure and
26 method of waterproofing includes a circuit board bracket and a silicone

1 rubber that are sealed through insert injection. And if we turn to Slide 92,
2 we see testimony from Dr. Berger as to what that means.
3 So, Dr. Berger explained that a POSITA would have known that
4 overmolding refers to a technique in which one material is molded over a
5 substrate, often by injection. And he would also have known that -- a
6 POSITA would also have known that another common technique to add a
7 seal was to use an overmolding process.
8 And in light of this knowledge, in paragraphs 311 through 312 of his
9 declaration, he explained that a POSITA would have understood that the seal
10 of *Jung*, which is disclosed as injected, would be overmolded around the
11 flexible part of the conduit, to enhance its quality.
12 If we return briefly to Slide 89, we can see here that the combined
13 button, which we described earlier, is formed through an insert-injection
14 process, where bracket 40 and silicone rubber 50 are combined. We can see
15 that structure is here, where the seal formed by the overmolded component
16 in green is around the flexible circuit in teal.
17 And what I'd like to point out, Your Honors, if we can go to Apple
18 Slide 53 briefly, one of the arguments you'll hear from Apple likely today is
19 that the flexible PCB and the silicone rubber do not have an insert-injection
20 based connection. But we'd point out that this slide, we believe, is
21 misleading, because it only identifies the interior of component 50 as part of
22 the seal, whereas for example, paragraph 97 of *Jung*, and Figure 5 show that
23 really the entire bottom portion of 50 should also be colored, the way that
24 AliveCor colored it in green.
25 And so, you can also see that in Figure 5 of *Jung*. And the other thing
26 is that we firmly disagree with Dr. Anthony's testimony here. We believe

1 that *Jung*'s paragraph 97 demonstrates that the components on this slide are
2 overmolded. They're combined through an insert-injection process.
3 Therefore, the flexible circuit, within opening 70, will have an overmolded
4 seal around it.
5 If we turn to Slide --
6 JUDGE DANIELS: Dr. Anthony's testimony is that this insert-
7 injection process is essentially overmolding?
8 MR. FERNANDO: So, that is certainly Dr. Berger's testimony.
9 JUDGE DANIELS: Or Dr. Berger, sorry. Yes.
10 MR. FERNANDO: Yes, Your Honor.
11 JUDGE DANIELS: So there's -- so basically, we're just talking about
12 nomenclature here, and that *Jung* discloses the overmolding of that entire
13 seal on that entire bracket?
14 MR. FERNANDO: Yes, Your Honor. I believe that's correct. So, in
15 paragraph 97, that is what is explained in *Jung*.
16 JUDGE DANIELS: Thank you.
17 MR. FERNANDO: Thank Your Honor. And I believe we'll reserve
18 the rest of our time and rest on the papers as to the *Chang* ground.
19 JUDGE BARRETT: Thank you.
20 MR. FERNANDO: Thank Your Honors.
21 JUDGE BARRETT: I'll put you down for nine minutes remaining.
22 MR. FERNANDO: Thank you.
23 JUDGE BARRETT: As you are preparing, how much would you like
24 reserved?
25 MR. MONALDO: Give me 15 minutes. I'd appreciate it.
26 (Pause.)

1 MR. MONALDO: All right, thank you, Your Honors, and may it
2 please the Board. On Slide 3 of our demonstratives, you'll see we offer a
3 table of contents, listing the various issues involved in today's proceeding.
4 Given the limited time we have, my plan is to give you a brief overview of
5 the '619 patent, and then turn to four of the issues related to the prior art.
6 I'll plan to start with the *Chang* ground that Petitioner's counsel didn't
7 address, turn to the deficiencies in AliveCor's combination of *Jung* and
8 *Meyers*, and then discuss AliveCor's mixing of embodiments in the *Kim*
9 reference. And finally, I'll finish with AliveCor's deficiencies in how they
10 address the overmolded requirement in Claim 4, which is only involved in
11 the 948 proceeding. The first three issues are the 949 proceeding.
12 So of course, if Your Honors have any questions, or would like to lead
13 the discussion in a different direction, please just let me know. I want to use
14 our time together to make sure I address any of your questions that you may
15 have.
16 So with that background, I'll turn to Slide 7 of our demonstratives. On
17 Slide 7, you see Figure 1 of the '619 patent, which shows a smart watch,
18 with a button highlighted in yellow, that is located in the sidewall of the
19 smart watch. Given the wristwatch form factor of the device, the device is
20 designed to be as thin as possible. It makes it challenging to implement a
21 button in the sidewall, particularly when that button includes additional
22 functionality, such as a biometric sensor.
23 One issue that arises with these types of buttons is sealing, and
24 making sure the electronic device remains waterproof. This is important
25 when the button includes a biometric sensor because you have to route an
26 electrical connection to that button while maintaining a sufficient seal. The

1 inventors of the '619 patent faced this issue and created a unique sealing
2 arrangement that provided the required electrical connection while
3 maintaining a waterproof seal.
4 You can see this in Slide 8 of our demonstratives, where you'll find
5 the detailed design the inventors developed to address the difficult sealing
6 task for the button shown on Slide 7 that we just discussed. On the left side
7 of Slide 8, you have Figure 2A, from the '619 patent, which shows you the
8 internal details of the button. Starting at the right side of Figure 2A, we
9 color in purple the input surface of the button, the portion of the button the
10 user presses.
11 Under the purple input surface, you have a biometric sensor that we
12 colored in red. At the upper part of the biometric sensor, you'll see that the
13 biometric sensor is connected to a flexible conduit that's colored in teal. The
14 flexible conduit provides an electrical connection between the biometric
15 sensor and the internal electronics of the watch. Given the tight dimensions,
16 you'll see how the flexible conduit wraps around the enclosure, highlighted
17 in yellow, and reaches a sealed region 209, which includes a seal colored in
18 green.
19 As shown on Slide 8, the flexible conduit is sandwiched between the
20 seal in green and the sealing surface of the button, which is colored in blue.
21 So as shown, with this sandwiching relationship, the green seal presses
22 firmly against the flexible conduit, highlighted in teal, sandwiching it
23 between the seal and the sealing surface, thereby creating a waterproof seal
24 that prevents the ingress of contaminants or water.
25 So with that background, I'll turn us to Slide 10. On Slide 10, you see
26 Claim 1 from the '619 patent. Claim 1 includes an enclosure, with an

1 opening formed in a sidewall. It includes a button assembly within the
2 opening. That button assembly includes an input member and a biometric
3 sensor, positioned below the input member. You also see a seal, and a
4 flexible conduit. And then you see a sandwiching relationship, an
5 arrangement which is shown at the last limitation on Claim 1. A portion of
6 the flexible conduit is sandwiched between the seal and the sealing surface,
7 or between the seal and the enclosure.
8 And to your question earlier, Judge Daniels, I'd agree with you, that
9 Figure A shows the seal between the sealing surface and the -- or the
10 sandwich of the flexible conduit between the seal and the sealing surface of
11 the button, and then the later figure would show you the flexible conduit
12 being sandwiched between the seal and the enclosure. So, moving --
13 JUDGE DANIELS: Right. That's where, that's sort of, right, the
14 written description for it, I see, for those particular pages, in particular. Is
15 there any friction when talking about these as sandwiched or stacked?
16 MR. MONALDO: That's a good question, Your Honor. The '619
17 patent discusses both of those types of arrangements, the sandwiching
18 relationship. And what we've considered sandwiching to be is that stacked
19 relationship where the seal is pressing, and sandwiching a flexible conduit
20 against another component, where the sealing surface of the button or the
21 enclosure is creating that tight seal that has a physical relationship where
22 these components are stacked together.
23 JUDGE DANIELS: Thanks. Got it.
24 MR. MONALDO: Great. So, moving to Slide 11, you see a
25 summary for requirements of this button assembly. First, the button
26 assembly must comprise a biometric sensor, positioned below the input

1 member. It also must be within an opening formed in a sidewall of the
2 enclosure. And you see finally, that includes a structural arrangement where
3 a portion of the flexible conduit is sandwiched between the seal and the
4 sealing surface, or the sealing enclosure.
5 So, starting briefly, I'll jump to Slide 36 of our demonstratives to just
6 briefly discuss the *Chang* grounds. So as shown on Slide 36, you see
7 *Chang*'s Figure 3 and *Chang*'s Figure 10. *Chang*'s Figure 3 is shown at the
8 upper right of Slide 36, and shows *Chang*'s button assembly in an exploded
9 view, with the components separated before they are assembled. For the
10 components, you have a seal highlighted in green, a flexible conductive
11 member, highlighted in teal, and a lower plate with a hole 471 highlighted in
12 blue that AliveCor maps to the claimed sealing surface.
13 From this description in Figure 3, AliveCor would have you believe
14 that these components just get stacked together in the order that is shown,
15 but that is not how *Chang*'s button is actually assembled. You can see this in
16 the lower part of Slide 36 where you see *Chang*'s Figure 10, which shows a
17 cross section of these components when they are assembled. In Figure 10,
18 the flexible conductive member 500, highlighted in teal, extends from the
19 right, below the lower plate highlighted in blue.
20 Starting from that lower side, it moves to the left, and then you see
21 when it reaches the middle of that figure, it extends upward and it goes
22 through that hole 471 that we talked about in Figure 3. After passing
23 through that hole, it rests and resides in a space that is coplanar and
24 surrounded by the seal 600 highlighted in green. So Figure 10 --
25 JUDGE DANIELS: So, Mr. Monaldo --
26 MR. MONALDO: Yes.

1 JUDGE DANIELS: Let me just see if I can simplify this. It looks
2 like Figure 3 is sort of -- I appreciate that it shows it's stacked, and that's
3 what Petitioner is relying on, but you're saying, this isn't correct. Stack is
4 sort of, is just a little bit -- disingenuous isn't the right word, sorry. But this
5 isn't right. Really, that flexible conduit comes up underneath and through
6 hole 471, and therefore it never is sealed. It's never sandwiched or abuts to
7 the seal.
8 MR. MONALDO: That's absolutely correct, Your Honor. You can
9 see it directly in the cross section in Figure 10. In Figure 3, you see, they
10 look like they -- or like prior art, they just come together, and flexible
11 conduit, highlighted teal, which just sit on top of the sealing surface. But
12 you can see in Figure 10, at the lower part, that's not true. Positioned both
13 above in blue, above and below that blue lower plate, which they're calling
14 the sealing surface, and it resides clearly coplanar with the seal, highlighted
15 in green. So it's not stacked, it's not sandwiched.
16 JUDGE DANIELS: Got it.
17 MR. MONALDO: Okay, great. Unless Your Honors have any
18 questions on the *Chang* ground, I think I'll move ahead to the combination of
19 *Jung* and *Meyers*. So, just to reset, I thought I'd turn us back to Slide 10, and
20 offer a brief reminder of what Claim 10 requires, and that is the sandwiching
21 relationship that is set forth at the bottom of Slide 10, and which we talked
22 about with respect to Figure 2A.
23 You have a portion of the flexible conduit, sandwiched between the
24 seal and the sealing surface, or between the seal and the enclosure. So
25 AliveCor contends, in the combination of *Jung* and *Meyers,* would result in
26 flexible conduit that's sandwiched between the seal and the sealing surface

1 of a button. Not the seal and an enclosure, but the sealing surface of a
2 button is where the sandwiching would occur in their proposed combination.
3 So with that, I'll turn us to Slide 26 of our demonstrative, so that we
4 can take a look at *Jung* and *Meyers* together. On Slide 26, you see *Meyers*'
5 Figure 1, at the left, *Jung*'s Figure 10 in the middle, and then AliveCor's
6 proposed combination of these two figures at the lower right. What you
7 won't see in Slide 26 is any disclosure from *Meyers* or *Jung* of the
8 sandwiching limitation of Claim 1, as neither *Meyers* nor *Jung* sandwich its
9 flexible circuit board between a seal and a sealing surface of a button.
10 As shown on the upper left, you see *Meyers*' structure, which includes,
11 from top down, a cover glass, 107, a button hole, 108, a button, 104, a
12 fingerprint sensor, 102, a flexible circuit board, 116, tactile dome switch,
13 118, a switch gasket, 120, and a button support plate, 122, that's highlighted
14 in blue. So you do not see it in *Meyers*' Figure 1, but *Meyers* also has a seal,
15 that we've talked about in this, in our briefing. And Slide 29 shows you text
16 describing *Meyers*' seal, using an excerpt from paragraph 130.
17 As shown at the lower right of Slide 29, *Meyers* describes a silicone
18 gasket, 1025, that forms a seal. Now since a picture is worth a thousand
19 words, I'll ask Your Honors to open *Meyers*, which is Exhibit 1007, and turn
20 over to Figure 12.
21 So starting at the right of Figure 12, the fourth reference numeral from
22 the right is 1025, and identifies *Meyers*' seal, located at the right side of
23 *Meyers*'s button. The seal actually encircles that home button, and although
24 *Meyers* does not repeat the reference numeral 1025, you can see a similar
25 sealing structure at the left side of *Meyers*' button. Now you can also see
26 this in *Meyers*' Figure 14. So, as the third reference numeral from the right

1 in Figure 14, you have *Meyers*' seal 1025, again at the right side of the
2 button, at its outer periphery.
3 As I mentioned, with respect to Figure 12, you see a similar structure
4 at the left side of *Meyers*' button, creating a seal that surrounds this home
5 button at the outer periphery of the button. So *Meyers* has everything you
6 need to seal its device, but does not use the sandwiching relationship that's
7 claimed.
8 Now if we move back to Slide 26, and Figure 1 of *Meyers*, which is at
9 the left-hand side, that confirms the lack of a sandwiching relationship. You
10 can see the button support plate, colored in blue. You also see --
11 JUDGE DANIELS: What's the --
12 MR. MONALDO: Yeah. Go ahead, Your Honor.
13 JUDGE DANIELS: What's the button support plate in Figure 12?
14 MR. MONALDO: Yeah, I don't think it's shown in Figure 12, Your
15 Honor. Figure 12 is showing you just kind of the home button and the
16 sealing arrangement, but there's no button support plate depicted in that
17 figure.
18 JUDGE DANIELS: Because that's what -- isn't that sort of what
19 Petitioner's argument is, they're saying -- I'm looking at, I'm looking just to
20 Slide 26. And they're saying that if they were to insert *Meyers*' button into
21 *Jung*'s bracket here, wouldn't the sealing surface, there in blue, 122, that like,
22 as I understand it, they're saying that would be on top of, and therefore
23 sandwiching flexible conduit against the green seal.
24 MR. MONALDO: Yes, Your Honor. That's my understanding of
25 their combination, and I'd like to talk about that. And we don't think that's
26 how these references would come together. I think the questioning in the

1 initial stand, I think suggests a lot of confusion with this combination. We
2 don't know if they're going from *Meyers* to *Jung*, *Jung* to *Meyers*, back and
3 forth. What are they taking? Are they taking the fingerprint sensor of
4 *Meyers*? Are they taking the seal of *Jung*? What -- how does this
5 combination work?
6 One way we don't think it works is the way that they proposed it,
7 where you take this button support plate stack, the entire button of *Meyers*,
8 and just slap it on to Figure 10 of *Jung*. There's no support for that, and
9 there's no reason a person of skill would do that. And I'd like to talk about
10 why. So if we go back to Slide 26, and we look at Figure 1 of *Meyers*, let's
11 look at how that's constructed.
12 So you see that button support plate, 122, highlighted in blue, you also
13 see two screws located under the button support plate, that are designed to
14 secure the button support plate in a position where it supports the button in
15 the button hole, 108. So when *Meyers*' button is assembled, that button
16 support plate presses the components of *Meyers*' button upward, toward the
17 cover glass, 107, and is screwed into the frame, using the two screws
18 depicted in Figure 1. But as we discussed, there's no seal, no sandwiching
19 disclosure in Figure 1.
20 Another important piece of what's shown at Figure 1 is the location of
21 the flexible circuit board, 116. As you can see, the flexible circuit board,
22 116 is located above the button support plate, adjacent to the fingerprint
23 sensor, 102. This location is important, because the flexible circuit board
24 provides an electrical connection to the fingerprint sensor, and what the
25 button support plate does is presses these two components upward together,
26 to maintain a tight electrical connection. So, in *Meyers*, the button support

1 plate really just presses flexible circuit board up against the flexible sensor
2 to maintain that connection.
3 So now let's take a look at *Jung*, and *Jung*'s Figure 10, which is shown
4 right next to *Meyers*' Figure 1. As shown in the middle of Slide 26, *Jung* has
5 a seal, colored in green, and a flexible printed circuit board, colored in teal.
6 *Jung*'s flexible circuit board rests adjacent to the seal, but it's not
7 sandwiched. There's no sandwiching disclosure that's shown in *Jung*. And
8 nothing suggests that *Jung* would sandwich its flexible circuit board between
9 the seal and other components, such as the sealing surface of a button.
10 So how does AliveCor actually address this sandwiching limitation?
11 As shown at the lower right, AliveCor proposes taking *Meyers*' button,
12 including that button support plate, and just simply sticking it atop of *Jung*'s
13 button and flexible circuit board. Take that entire button and stick it on top.
14 Essentially, AliveCor is just proposing taking one complete button and
15 putting it on top of another. AliveCor includes all of the components of
16 *Meyers*, and just stacks them on *Jung*'s Figure 10.
17 A larger image of this is shown on Slide 27, with testimony from Dr.
18 Anthony, explaining why a person of ordinary skill in the art would not have
19 reached this construction, would not have found it obvious, and would have
20 created problems in how these references come together. So as shown at the
21 upper right of Slide 27, Dr. Anthony offered testimony explaining why, if it
22 were to be used with *Meyers*' button, *Jung*'s flexible circuit board would
23 need to be arranged at the same location as *Meyers*' flexible circuit board,
24 116, which is above, not below the support plate.
25 The reason is that the electrical connection is needed for the
26 fingerprint sensor. *Meyers*' button support plate, 122 is nonconductive. If it

1 was simply placed on top of a flexible circuit board, as AliveCor proposes, it
2 would block electrical connection to the fingerprint sensor and it would
3 render that sensor inoperable. So either the flexible circuit board would
4 need to be routed above *Meyers*' button support plate, and would not be
5 sandwiched between the button support plate and the seal, or *Meyers*'
6 flexible circuit board, 116, would be retained in the combination, they're just
7 pulling the entire button in, it appears, and would serve the function of
8 maintaining the electrical connection with the fingerprint sensor, rendering
9 the circuit board, 30, of *Jung*, redundant and irrelevant in the combination.
10 So for these reasons, a person of ordinary skill in the art wouldn't
11 have just stacked that button support assembly on top of what's shown in
12 Figure 10. And you wouldn't arrive at the sandwiching relationship. Slide --
13 JUDGE DANIELS: Couldn't you just -- couldn't you -- just -- if I'm
14 looking at *Jung*, couldn't that flexible conduit or circuit that goes inside,
15 goes in between the bracket and the seal, couldn't it just come up and
16 connect with ones -- I didn't -- thank you for explaining 116. 116 is the
17 electrical connection for the fingerprint sensor, 102, if I'm understanding it.
18 Couldn't it just come up and connect with that?
19 MR. MONALDO: I guess it could, in some ways, but why would it
20 be sandwiched, if it does that? I guess that's our position, and that's our
21 testimony from Dr. Anthony, explaining that if you would locate it at that
22 vertical level, you'd simply connect it to the fingerprint sensor, and you
23 wouldn't have this sandwiching relationship that's artificially manufactured
24 within AliveCor's proposed combination.
25 Also, I don't think we have any testimony, any evidence from
26 AliveCor's expert, talking about that. If you go back and look in their

1 expert's original declaration, there's no theory that there's somehow a
2 sandwich, and then, you know, some kind of extension, and some kind of
3 modification, none of that. You won't see any testimony from their expert.
4 There's nothing to support that type of argument in their petition, in their
5 expert declaration. It would be a new argument, and there's just no evidence
6 to support that type of interpretation.
7 Also, as we discussed, and as shown on Slide 27, you see other
8 testimony from Dr. Anthony, providing an additional reason why AliveCor's
9 proposed combination fails. So, as shown at the lower right side of Slide 27,
10 you have testimony from Dr. Anthony, explaining why the button support
11 plate of *Meyers* would need to be located under *Jung*'s seal and flexible
12 circuit board to achieve any type of sandwiching of these components.
13 So as discussed when we addressed *Meyers*' Figure 1, *Meyers*' button
14 support plate is screwed upward, into the frame that supports the cover glass
15 of the mobile phone. Because the button support plate is secured upward, it
16 sandwiches the components above it, not the components below it. In fact,
17 when screwed upward, the button support plate would be urged away from
18 the components that are located underneath of it.
19 For those reasons, and because neither *Meyers* nor *Jung* disclosed a
20 sandwiching relationship, it would not have been obvious to modify *Meyers*
21 and *Jung* in this manner proposed, where you'd have to have a -- where
22 AliveCor says that these two components are sandwiched, but one is being
23 urged away from the other. We just don't see any evidence of record that
24 suggests that you would keep this button support plate, have a sandwiching
25 relationship, and then maintain an electrical connection.

1 We've pointed out all of these flaws in our Patent Owner response,
2 and Petitioner did not submit a reply declaration, did not address those
3 problems. They simply relied on the testimony from their expert, which said
4 okay, just take this entire button, just stack it on top. We don't know how
5 the connection happens. We don't know how these come together. We don't
6 know which reference is modifying which. There's just no evidence to
7 support a legally sufficient obviousness combination with *Jung* and *Meyers*.
8 So unless there are any other questions on *Jung* and *Meyers*, I'll turn
9 to the *Kim* grounds. All right, and I'll start us off at Slide 15 of our
10 demonstratives. So, as shown on Slide 15, you see two relevant figures from
11 *Kim*, Figure 18, which shows one embodiment, that's a quote from the *Kim*
12 reference, on the left, and Figure 10, which shows still another embodiment,
13 quote from the *Kim* reference on the right.
14 Now we've heard today, AliveCor trying to rewrite the disclosure of
15 *Kim*. They're saying, this is a single invention, Figure 18's only about the
16 location, and you could put these buttons together any way you want. That
17 is not what *Kim* describes. This is unequivocally a case about mixing
18 embodiments, where Figure 18 is showing a different embodiment of Figure
19 -- than Figure 10.
20 We can see that in *Kim*'s disclosure, and maybe I'll turn us to start at
21 column 17. And you see, at line 17 of column 17, and this is the *Kim*
22 reference, Exhibit 1004, so you see what it describes there. Figure 7 is a
23 diagram illustrating examples of a combined button of an electronic device,
24 according to one embodiment. Figure 18 shows a perspective view of an
25 electronic device, and a partially enlarged view of an indicated area of the

1 electronic device, including a combined button of the electronic device,
2 according to one embodiment.
3 Figure 7 and 18 show examples of the combined button located on the
4 surface, or the side surfaces of the electronic device, two alternatives.
5 Figure 7 is showing you a circular home button, Figure 18 is showing you a
6 power button. If you look at the labels of Figure 7 and Figure 18, they use
7 different reference numerals for these buttons. In Figure 7, it's 760. That's
8 what they use when they're talking about a circular home button. In Figure
9 18, it's 764.
10 So if you move on, you see column 19 is where *Kim* provides a very
11 brief description of Figure 18. It's encapsulated here, within column 19, line
12 14 to about line 30. So it's very short. It describes this power button, 746, a
13 numeral that's used exclusively on Figure 18, none of the other buttons, and
14 it says, that one embodiment has the button on the lateral sidewall. It says,
15 oblong power button, 764.
16 At this point, *Kim* hasn't mentioned Figure 10 at all. There's been no
17 mention of Figure 10 before this, no discussion of Figure 10. You get to that
18 discussion at column 21, several columns later. And you see how it
19 introduces it at 20 -- at column 21, line 20. Figures 10A and B show a front
20 view and a cross-sectional view of a combined button of an electronic
21 device, according to still another embodiment.
22 Still another embodiment. We've already done describing Figure 18.
23 We get to Figure 10, and it's still another embodiment, a different
24 embodiment than what came before. I think that's a clear --
25 JUDGE DANIELS: Mr. Monaldo?
26 MR. MONALDO: Yes.

1 JUDGE DANIELS: The issue -- I have some -- there is no deal to
2 Petitioner's argument that Figure 7 and 18 are discussed from the standpoint
3 of where you can put a button. To the extent those are embodiments, they
4 may also be described as examples of where you could put a combined
5 button. And then I go and look at the different, perhaps true embodiments of
6 different buttons, which are sort of apart from where -- that's a separate issue
7 from where the button can be placed, at least spatially.
8 And I appreciate Petitioner's argument, particularly as the extent that
9 we're not combining the different, any part of the different buttons
10 themselves. We're just saying that the button that we're focused on, which is
11 Figure 10, in the context of the patent, could be on the, on any side, and in
12 any different shape. Isn't that a fair reading of this?
13 MR. MONALDO: We don't think, Your Honor. We don't think so,
14 Your Honor. If maybe we move back to Slide -- well we're on Slide 15. We
15 can see clearly that these are two different buttons. You have 764, on the
16 lateral surface of the device, in Figure 18. You have 760, a different button,
17 a circular home button. These buttons are clearly different. And as we
18 discussed, they're described as being a separate embodiment. And you can
19 clearly see that the Figure 10 button just can't be put on the side surface.
20 You know, there's all kinds of problems, and we pointed them out in
21 the Patent Owner response. And AliveCor's only reply is that well, a person
22 of ordinary skill in the art would have immediately envisioned the circular
23 home button in Figure 10 being used for that oblong power button in Figure
24 18, as part of a single invention. But AliveCor's position is belied by the
25 express disclosure in *Kim* that we just discussed. As *Kim* tells us, these are

1 different embodiments, and it's clear that the button in Figure 10, 760 is
2 different from the button in Figure 18.
3 AliveCor also did not submit a reply declaration. There's no evidence
4 about what a person of ordinary skill would have immediately envisioned
5 from *Kim*, or that a person of skill would have considered it a single
6 invention. There's nothing about that in the petition, nothing about it in their
7 expert declaration, and they don't have any testimony to substantiate those
8 claims.
9 Also, in terms of -- so, in our view, this is clearly a mixing
10 embodiments case. This is not an anticipatory disclosure. These are two
11 different embodiments, two different buttons, and a person of skill would not
12 have just immediately envisioned the Figure 10 button being popped over to
13 the Figure 18 button.
14 And so, if we look at obviousness, just look back what the petition
15 and expert declaration did. AliveCor simply assumed that Figure 10 button
16 could be used as a Figure 18 button. It did not acknowledge that Figures 10
17 and 18 show different embodiments, or address any challenges or
18 modifications that would be needed to use the Figure 10 button as the Figure
19 18 button. AliveCor just incorrectly assumed that it didn't need to show a
20 motivation to combine these two embodiments, and didn't need to show a
21 reasonable expectation of success, and didn't offer any evidence on these
22 issues with its petition. But that treatment, AliveCor's petition did not put
23 forward a legally sufficient combination.
24 Now after we pointed out these failures in the Patent Owner response
25 and had our expert, Dr. Anthony explained the challenges of using *Kim*'s
26 Figure 10 button as a Figure 18 button, what did AliveCor do? It doubled

1 down, simply contending that *Kim* shows a single invention, and arguing for
2 a presumption of motivation to combine, without submitting any type of
3 evidence to contend with the issues we raise in our Patent Owner response,
4 or otherwise establish evidence that a person of ordinary skill in the art
5 would have been motivated to use the Figure 10 button in the Figure 8 -- as
6 the Figure 18 button, or establish a reasonable expectation of success in
7 doing so.
8 These challenges that Dr. Anthony discussed are also apparent. Just
9 look at Figures 10 and 18, side by side. And these should have been
10 addressed. These differences should have been addressed in the petition and
11 they weren't. You have differences in the size and shape of the buttons.
12 AliveCor did not acknowledge these differences. The Figure 18 button is
13 located in an entirely different location, and an entirely different face of the
14 electronic device. Again, AliveCor did not acknowledge these differences.
15 The face of the Figure 18 button is oriented orthogonally to the face
16 on which the Figure 10 button is located, and has a completely different
17 orientation to the other components within the device that support the Figure
18 10 button. Yet again, AliveCor did not --
19 JUDGE KINDER: Can you explain how this orientation would
20 impact function, though? They're saying essentially there's no difference in
21 function, even with the screen.
22 MR. MONALDO: Function of the button or the sensor? You know, I
23 guess the way I see it is, if you look at Figure 18, it's very different than
24 what's shown in Figure 10. The orientation of the components under the
25 button that's supported are different than what they are in Figure 18. You
26 don't have these protective layers, 707 and 708. You have a different way

1 you'd route the connection. The processor's located in a different place. So,
2 you know, these things need to be addressed. You can't just take the Figure
3 10 button and stick it in Figure 18.
4 And you'll also see, in Figure 18, the display directly abuts against the
5 enclosure at the bottom surface there, whereas in Figure 10, the display
6 encircles the button. And so there's differences in where that seal actually
7 gets adhered. Is the force touch pin on both sides? Can it be adhered in that
8 manner? There's differences in how it sits and on it rests, how its
9 components are done. There's just lots of differences that are not even
10 acknowledged by AliveCor.
11 You don't have a record where there's any evidence of how a person
12 of ordinary skill in the art would have addressed these issues. And we
13 believe it's AliveCor's burden to show that. We have a clear disclosure of
14 different embodiments. And when you have that, you have to have a
15 motivation to find, you have to have a reasonable expectation of success,
16 and there's none of it in this record.
17 We've pointed all of these problems out. We have testimony from Dr.
18 Anthony, about not simply taking the Figure 10 button and moving it to the
19 Figure 18 location. And maybe I'll turn to that. That's on Slide 18.
20 JUDGE DANIELS: Mr. Monaldo?
21 MR. MONALDO: Yes.
22 JUDGE DANIELS: Before you -- just to follow up on your idea here
23 that there's not support for this, did you all ask Dr. Berger, during
24 deposition, anything about how or if you could move these, the button from
25 Figure 10 to position in Figure 18?

1 MR. MONALDO: Yeah, Your Honor. We'll look back for cites that
2 we provided in the deposition transcript, and I'll get back to you on that on
3 rebuttal. But what we did ask Dr. Berger about is what's in his declaration,
4 and you'll see none of that in his declaration. So really, there's not much we
5 could have asked, because Dr. Berger didn't give us anything in his
6 declaration. He had made an assumption. He assumed the Figure 10 button
7 is the Figure 18 button, and that's it. That's the analysis. If you go -- please
8 go back and look at his declaration. That's all the testimony they have, and
9 that's all we had to go with, to ask him questions at deposition.
10 I guess, an additional problem, too, you see on Slide 17, there's
11 actually two parts of this fingerprint sensor in the Figure 10 button. You
12 have a central, circular part of the fingerprint sensor, 760, that's highlighted
13 with darker shading, and then you have this ring-shaped outer part, 760B,
14 highlighted with lighter shading. The ring-shaped outer part of the sensor
15 surrounds that circular inner part. And as shown at the lower right of Slide
16 17, both parts of the sensor are needed to get this complete fingerprint scan.
17 You have a first scan from the ring-shaped outer part, and a second scan
18 from the circular inner part, and those two scans are put together to produce
19 a composite image of the fingerprint.
20 So with this structure, you could not simply move it to the Figure 18
21 button, or use it for the Figure 18 fingerprint sensor, because Figure 18
22 button does not include these different sensor parts. It wouldn't work, and
23 AliveCor glosses over these important details. And again, look at the
24 evidence. It's practically one-sided on these issues. Go back to Dr. Berger's
25 declaration. It does not acknowledge any of these issues, and just merely
26 assumes that the Figure 10 button can be used as the Figure 18 button.

1 That's not evidence. And Dr. Berger's testimony does not explain how
2 you would move these two sensing components over to the side, or provide a
3 legally defensible combination that addresses motivation to combine and
4 reasonable expectation of success. So what you're left with is a one-sided
5 record, of which Dr. Anthony identified a host of issues, and no evidence
6 from AliveCor explaining how any of these issues would have been
7 addressed by a person of ordinary skill in the art.
8 AliveCor has the burden of proof. And with this hearing, has fallen
9 far short. They're not even acknowledging the different embodiments.
10 They're not acknowledging the differences that we've met, or that we've
11 identified, which are clear, from just looking at the two figures. They've
12 offered no evidence to dispute the positions that were raised by Dr. Anthony
13 in his declaration. And you can see some of those issues on Slide 18. So, as
14 shown at the left of Slide 18, Dr. Anthony explained how you cannot simply
15 take *Kim*'s Figure 10 button and use it as *Kim*'s Figure 18 button.
16 At the right of Slide 18, you see testimony from Dr. Anthony,
17 explaining how modification would be needed, in terms of the size and
18 shape of the components, how you seal a button, and how you route
19 electrical connections to the button.
20 Other complexities are discussed in Dr. Anthony's testimony, shown
21 on Slide 19. As shown at the right of Slide 19, Dr. Anthony addresses other
22 technical complexities. You can see at the right, increased device thickness,
23 inability to capture sufficient information, challenges to integrate techniques
24 that are required on a narrow topology, and requirements of mechanical
25 input for sufficient fingerprint detection using a button sized and shaped like
26 *Kim*'s Figure 18 button, that oblong button, designated as reference numeral

1 764, different from the home, circular home button shown in the other
2 figures.
3 Now we've raised all of these issues in our Patent Owner response,
4 and again AliveCor had every opportunity to address them in the Petitioner
5 reply, but chose not to, instead relying on the legally faulty assumption that
6 these two figures and buttons could be combined.
7 So with that truth then, we think that AliveCor has fallen far short of
8 its burden. It hasn't addressed motivation to combine, hasn't addressed any
9 of these issues, hasn't provided any evidence of reasonable expectation of
10 sense -- of success, that is required when you have this mixing embodiment
11 type disclosure, where you clearly have two different buttons, a circular
12 home button, 760, and a power button, 764.
13 When you look at Figure 18 and Figure 10 side by side, you can
14 clearly tell they're different buttons. AliveCor has not addressed any of
15 these problems, not given any evidence on which Your Honors can rely on
16 to determine how a person of skill would have perceived these challenges.
17 And you heard from Mr. Douglas earlier, well you couldn't combine Figure
18 9 and 10. He said that in his direct. I mean, that's the same button. It's on
19 the same face of the device.
20 Same button, 760, you couldn't combine those figures, but you
21 combine 10 with 18, which have completely different buttons, labeled with
22 different reference numerals, and disclosed at very different spots, where the
23 Figure 10 discussion comes completely after the Figure 18 discussion, and
24 leads it off by saying, still another embodiment, something different than
25 what came before. We just think there's an --

1 JUDGE DANIELS: Mr. Monaldo, let me just ask you. I think one of
2 Petitioner's arguments is that, in the '619 patent, they don't talk about this
3 either. They just say hey, you can have it on the front, you can have it on the
4 side. I mean, my concern with your argument is that I haven't seen
5 anywhere where Dr. Anthony says -- and I'm going to go look for it -- where
6 he says, you can't do that, it would be extremely difficult. And my concern
7 is that it's treated in both the '619 patent and here, as something that's
8 someone with ordinary skill in the art could -- I will go look at Dr. Berger's
9 testimony. I appreciate you pointing that to what you're saying is the lack of
10 this discussion.
11 But can you just address the issue of both of these patents, the
12 skimming the surface of this idea that a button on the side is any -- I
13 appreciate there would be some differences, but I also don't understand why
14 a person of ordinary skill in the art couldn't figure out how to make a button
15 of a different size, or a little thinner, and in a similar way.
16 MR. MONALDO: Yes, that's a good question, Your Honor. I'll point
17 you to the testimony on Slide 18 and 19. Those are citations that we have to
18 Dr. Anthony's testimony, talking about all these modifications and things
19 that you would need to do to complete this combination, this proposed
20 combination. I guess the way I would answer your question is, there's no
21 evidence that would suggest that a person of ordinary skill in the art could
22 do any of this.
23 You've seen nothing from AliveCor. Go back and look at Dr. Berger's
24 testimony. He doesn't address any of it. He hasn't provided any evidence
25 that you could make these adjustments to size, you could make the

1 adjustments in the shape of the button. You'd still route it the same way.
2 You'd still seal it the same way.
3 As we talked about, one of the big challenges, you're flipping the
4 orthogonality of the device, relative to the components that are inside. On
5 Figure 10, you have a flat, larger front face, where the boards are all oriented
6 in one direction, and you flip it to the side. It's got a different orientation of
7 everything in that device. Where the components are, the electrical
8 components are located, how the seal would have to be arranged relative to
9 that surface, how thick that surface is, just lots of different issues, how that
10 button would be supported against those components when they're, you
11 know, located orthogonal to it, there's lots of problems with how this would
12 come together.
13 And Dr. Berger addressed none of them. There's no evidence in the
14 record to support how you would deal with any of those challenges. Does
15 that answer your question, Your Honor?
16 JUDGE DANIELS: Thank you, yes.
17 MR. MONALDO: Okay, great. So unless there's any other questions
18 on *Kim*, I'll turn to Claim 4 briefly. Claim 4 is only implicated in the 974, or
19 978 proceeding, so it's specific to that proceeding. As shown on Slide 46,
20 Claim 4 adds the requirement that the seal is overmolded around the portion
21 of the flexible conduit that is sandwiched.
22 Moving to Slide 47, you see testimony at the right side of Slide 47
23 from AliveCor's expert, Dr. Berger, explaining that overmolding refers to a
24 technique in which a material is molded over a substrate, often by injection.
25 Now this testimony is from paragraph 206 of Dr. Berger's declaration, which

1 is Exhibit 1003. I think it's the first part, because there's two parts of that
2 exhibit.
3 And you can see, in that paragraph, he goes further, and explains that
4 the overmolding process occurs when a mold material, such as an epoxy,
5 resin or the like, is injected, poured or otherwise loaded into a space, such
6 that it surrounds another component. Once injected, the mold material may
7 be cured, such as by heat, so that it forms a hard casing, or overmold around
8 the component.
9 We also have testimony from Dr. Anthony, in Exhibit 2009, his
10 declaration, that's provided at paragraph 140, that explains how overmolded
11 seal, an overmolded seal conforms and takes the shape of the structure over
12 which it is overmolded. So to meet the overmolded requirement of Claim 4,
13 the seal must overmold around the portion of the flexible conduit that's
14 sandwiched. That's the claim language, overmolded around the portion of
15 the flexible conduit.
16 So now with that background, I'll turn to Slide 49, to discuss the prior
17 art, starting with *Kim*. So, Slide 49 shows you Kim's Figure 10 again, and
18 its rubber seal, 722, that is colored in green, and has ends that adhere to a
19 force touch panel, 730, that sits under and runs parallel to the display. As
20 shown at the top of Slide 49, Dr. Anthony reviewed *Kim*'s seal, 722, and
21 confirmed that it's not overmolded, and explained why it would not have
22 been obvious to create *Kim*'s seal using an overmolding technique.
23 You see this in *Kim*'s Figure 10 itself, where the rubber seal, 722 has
24 ends that extend upward and adhere to the force touch panel, 730, with a
25 separate adhesive. These ends also define recesses, 760r1, which are
26 highlighted in red. You can see that in the red highlighting. The seal

1 extends upward, goes over, adheres to the force touch panel and has this
2 recess defined under it.
3 A seal that is constructed using overmolding would not have these
4 properties. As Dr. Anthony testified, when a seal is overmolded, the seal
5 takes the shape of the substrate that it is molded over. *Kim*'s seal, however,
6 clearly does not take the shape of the components over which it sits. As
7 Figure 10 shows, *Kim*'s seal has ends that extend upward, and define
8 recesses under the seal, do not take the shape of the substrate on which it
9 sits.
10 With a recess defined below the seal, how can it be overmolded? It
11 can't. *Kim*'s seal is not overmolded, and can't be overmolded while
12 maintaining the same shape, adhering to the force touch pin in the same
13 manner, and performing the functionality of defining the resource, recesses
14 that are part of *Kim*'s design.
15 JUDGE KINDER: Can you explain that a little bit more? What do
16 you mean by -- is it just because of the recesses, the recesses would be filled
17 with essentially the mold material?
18 MR. MONALDO: That's right. Exactly, Your Honor. So, it wouldn't
19 be able to take the shape, wouldn't define the recesses. If you're
20 overmolding that seal, you'd have to be injecting something into that space,
21 and the resources would conform to the structure under it, so there would be
22 nothing. There would be no recess. So you couldn't have the recesses in
23 *Kim*, that are clearly part of its design, they're labeled with a reference
24 numeral. They're talked about in its disclosure. You can't get those when
25 you're overmolding a seal. And so again --

1 JUDGE DANIELS: I do note, Mr. Monaldo, that the claim, Claim 4
2 says the seal is overmolded around the portion of the flexible conduit. Does
3 that make any difference, that language?
4 MR. MONALDO: You know, I think it does. It's telling you that the
5 seal has to be around the portion of the flexible conduits that's sandwiched.
6 And we just don't see that in *Kim*. There's no overmolding of the seal. You
7 know, I think Petitioner has made an argument in their reply, a complete
8 new argument, that well maybe there's a portion that's overmolded. So
9 maybe you get a little portion of the seal that's overmolded, and then another
10 portion that's not, because they can't explain how the ends of the seal are
11 overmolded. They're just not. There's recesses under them, you can't have
12 overmolding.
13 So then they say well, maybe this little tiny portion is overmolded but
14 the other portions aren't. There's no evidence of that. There's no reference
15 that says you can form a seal, partly overmolded, partly not overmolded.
16 There's no testimony from their expert. There's no reply declaration
17 submitted with the Petitioner reply. If you look back at the petition, they
18 gave you one page, one page of analysis on Claim 4. It's just very thin.
19 There's nothing that accounts for any of these structural characteristics of a
20 seal. And when they say, *Kim*'s seal can be overmolded, they don't explain
21 how you would overmold it. They just say it can be overmolded, and you
22 just couldn't do it and get that structure that's shown in *Kim*'s Figure 10.
23 So, with that treatment, you know, our position is, AliveCor has
24 simply not met its burden to show that that seal in Figure 10 could be, and
25 would be obvious to create using overmolding. So unless there's any

1 questions on *Kim*, I'll turn briefly to *Jung*, and its overmolding, or alleged
2 overmolding.
3 So starting again with Slide 47, just recall the language of Claim 4,
4 shown at the left of Slide 47. The seal is overmolded around the portion of
5 the flexible conduit. And recall Dr. Berger's testimony, shown on the right
6 side. Overmolding is where a material is molded over a substrate. So, for
7 the material to overmold the substrate, the substrate must be present.
8 Overmolding cannot occur if the material is present but there's no substrate
9 to mold over.
10 So now moving to Slide 53, let's discuss *Jung*. As shown on Slide 53,
11 you have *Jung*'s Figure 8. *Jung*'s seal, 50 is highlighted in red, and
12 connected to a bracket, 40, with an opening, 70, the opening defined in the
13 side of this bracket. Missing from Figure 8 is *Jung*'s flexible circuit board,
14 30, which is later inserted through that opening, 70.
15 This is important because *Jung*'s seal is clearly assembled before the
16 flexible circuit board is present in *Jung*'s device. Because the flexible circuit
17 board is only later inserted through the opening, and placed adjacent to the
18 already-assembled seal, the seal cannot be overmolded around the flexible
19 circuit board. You see this on Slide 54, where you see the flexible circuit
20 board, colored in teal, as being separate from the seal and the bracket
21 structure. You also see this again on Slide 55, where you see how that
22 flexible circuit board, colored in teal, is inserted through opening 70, and
23 simply placed on the seal 50, colored in red.
24 With this structure, *Jung*'s flexible circuit board is just merely placed
25 on top of the seal, with the seal being located under and supporting the
26 flexible circuit board. That's not overmolding. And nothing in *Jung*

1 suggests that its seal could be overmolded around the flexible circuit board,
2 because the flexible circuit board is not even present when *Jung*'s seal is
3 assembled in the device. And nothing later happens that would mold the
4 seal over a portion of *Jung*'s flexible circuit board that AliveCor alleges is
5 sandwiched.
6 AliveCor never even alleges that a later process causes the seal to
7 conform around the portion of the flexible circuit board, where the alleged
8 sandwiching occurs. Now, *Jung* does reference a bonding that occurs after
9 the flexible circuit board is inserted, but that bonding is not used to construct
10 a seal, or overmold it around the flexible circuit board. It is simply to seal
11 what *Jung* calls the silicone-not-attached portion, which thereby seals the
12 opening through which the circuit board was inserted.
13 You see that with the red annotations on Slide 55, that circle the
14 silicone-not-attached portion, which is the small portion with the opening
15 that is sealed in the bonding process. That sealing is different from seal 50,
16 and not something that results in the seal 50 being overmolded around the
17 allegedly sandwiched portion of the flexible circuit board, 30. Now *Jung*'s
18 text confirms this, and you see that on Slide 57.
19 As shown in the bolded text at the right of Slide 57, you see that *Jung*
20 describes a process of bonding only the silicone-not-attached portion for
21 waterproofing after assembling the flexible circuit board through the
22 silicone-not-attached portion, bonding only the silicone-not-attached portion.
23 Not the seal, not the interior, only the silicone-not-attached portion, and
24 doing so after the flexible circuit board has been inserted. Now, for these
25 reasons, *Jung*'s seal is not overmolded around the flexible circuit board. It
26 would not be obvious to overmold it.

1 Unless Your Honors have any further questions, I'd reserve the
2 remainder of my time.
3 JUDGE BARRETT: I think we're good. Thank you. I've got you
4 down for 12 minutes.
5 MR. MONALDO: Thank you, Your Honor.
6 (Pause.)
7 MR. DOUGLAS: Good morning again, Your Honors. I'd like to start
8 with the *Kim* grounds. And what I'd like to start with is, we heard a lot
9 about the arrangement of buttons and how difficult it would be to move
10 buttons from one location to another. And I want us to take a big step back.
11 Slide 34, as we show in *Kim*, starts us from a position where we know
12 buttons can be placed in different locations. And I ask you, Your Honors, I
13 ask you to look at Figure 7 with me, of *Kim*. And Figure 7 has multiple
14 different views. But I want us to pause and take a minute, and as my
15 opening, I talked about how these buttons -- I showed you a disclosure
16 where buttons could have different sizes and shapes, and different locations.
17 And much was made about the fact that the changing of shape would be an
18 issue.
19 Again, I show you in Figure 7, we show, we see different shapes and
20 sizes. Figure 18, we see different locations. This is all contemplated by
21 *Kim*. And I draw your attention to, for example, column 17, lines 53
22 through 61, and column 18, lines 25 through 27, in which *Kim* tells us the
23 home button, 760, which is the combined button, may include a circular
24 shape, a circular band shape, an oval shape, or a rectangular shape. *Kim* is
25 telling us that there's no issue to a POSITA with changing the size and shape
26 of buttons.

1 So we see on Slide 34, we see that *Kim* has no issue with locations of
2 buttons. *Kim* tells us they can be in all manner of locations. And if we go
3 back one slide, to Slide 33, we see, when Apple was trying to suss out
4 whether Dr. Berger would admit that button -- that Figures 7 and 18 showed
5 different embodiments, Dr. Berger made clear in his testimony that *Kim*
6 makes clear that the same button could be in other locations other than the
7 front.
8 And now I'd like to turn back to Slide 27 and talk about the evidence.
9 So, in one example, we show, in paragraphs 108 and 109 of Dr. Berger's
10 declaration, as I walked through in my open, Dr. Berger walking through
11 and analyzing how the combined button would be used. And he says, *Kim*
12 further contemplates that the combined button is in a button assembly within
13 an opening of the sidewall. And he explains why he reaches that conclusion.
14 He says, a power button located on the lateral surface of an electronic device
15 may also be the combined button.
16 He also says, as another example, *Kim* discloses that combined
17 buttons may further include a power button. In the next sentence, although
18 the home button is described as an example of the combined button in this
19 embodiment, the combined button is not limited to that home button. Now
20 while the home button certainly is referred to as 460, that is when *Kim* is
21 talking about a home button, he's talking -- or he or she is pointing to button
22 460. When he's talking about a lateral or power button, he's talking about
23 764.
24 I'd like to look at Patent Owner's demonstrative, 15, please. And
25 much was made about the differences between, when just looking at these
26 two figures, there are insurmountable differences. And the first thing I

1 would like to remind you from my open is, when I was speaking about
2 Figure 18 of the *Kim* reference, I reminded you that the power button, 764,
3 that we see in the lower left, both has a physical button and a virtual button.
4 There's no concern that this is a different structure and there's somehow not
5 a virtual button here.
6 And when the display, 710 is extended toward the bottom of the
7 lateral surface, and we see 710 on Figure 18, on Patent Owner's
8 demonstrative, when it's extended toward the bottom of the lateral surface,
9 e.g. closer to the back surface of the electronic device, the physical button,
10 764a may be located in the display, 710. And the virtual button, 764b may
11 surround the physical button, 764a, and be located on the display, 710.
12 In Figure 18, it is telling you, there's not -- there's an arrow here that
13 says, "side surface." I'm not sure what that's referring to, but 710 extends all
14 the way past that button. That button, 764 is in the display, just as it is in
15 Figure 10. And that virtual button completely surrounds the physical button.
16 Again, there are no differences, other than shape, and I've cited to you a
17 number of locations where *Kim* even tells us that shape is, doesn't matter.
18 I'm showing you that the exact same structure and function is present.
19 Now, we talked about -- Patent Owner talked about column 21. And I
20 believe he read to you column 21, starting at lines 23 -- I'm sorry, 20, where
21 he made hay of Figures 10 and -- 10A and 10B show a front view and a
22 cross-sectional view of a combined button of an electronic device, according
23 to still another embodiment. Again, I think we talked about that, in my
24 open, that Figure 10 is a different embodiment for Figure 9. I don't dispute
25 that. But let's keep reading.

1 Referring to Figure 10A, a circular home button, 760, including a
2 physical button, 760a, and a virtual button, 760b, may be implemented as an
3 example of the combined button in the display, 710. There's no dispute here
4 that display 710 extends -- or there can be no dispute. *Kim* tells us that the
5 display extends and surrounds the button. So, Your Honors, there's a lot
6 made about evidence. I've shown you evidence. You'll see it cited in our
7 papers, 108, 109 and 110, from Dr. Berger.
8 We see the disclosure, explicitly in *Kim*. And with that, I think I will
9 reserve the rest of our time for Mr. Fernando, if there aren't any questions.
10 JUDGE BARRETT: Thank you.
11 JUDGE DANIELS: So, I just want to be clear that, so that last point
12 you just made, that the -- if I'm looking at Figure 18, these green, that's
13 green, 710 extends from the top down the side. And then, even though this
14 button, even though the button, 764a is on the side, still within that screen,
15 still surrounded by the additional sensor, 764b.
16 MR. DOUGLAS: That's the point, Your Honor. What we're trying to
17 do is what -- or Apple's raised a lot of reasons of why you can't do what is
18 clearly enabled by *Kim*, and I just want you to have all the disclosure in *Kim*
19 before you, so that you can see that there really is nothing more than moving
20 these buttons around.
21 JUDGE DANIELS: Thank you.
22 MR. FERNANDO: So very briefly, Your Honors, with respect to the
23 *Jung-Meyers* ground, I want to start with the slide that perhaps Patent Owner
24 didn't want to share, which is that they have said that the missing Claim 1
25 limitations are 1.a and 1.c. Yet all you heard about in their presentation was

1 that the sandwiching element is not met by *Jung-Meyers*' combination.
2 That's Element 1.f.
3 They relied on Figure 12 of *Meyers*, and they made some argument
4 about the structure, 122 in *Meyers* not being conductive. Those are also new
5 arguments. Those were not made in their papers, and those arguments are
6 therefore waived, as is the argument about the sandwiching element not
7 being met.
8 Very briefly, Your Honor, with respect to Claim 4 on Ground 3,
9 they've made this argument that the flexible circuit is later added. But I'd
10 add that this is an apparatus claim. What matters is that the seal is created
11 through overmolding. And so, even if they were right, what matters is that
12 the structure in *Jung* is created through insert injection, and if you look at
13 paragraph 97, that is clearly through overmolding. Thank Your Honors.
14 JUDGE BARRETT: I see your time's up. If you want to take a
15 minute or two to wrap up, that's fine. It's been a bit of a hot bench.
16 MR. FERNANDO: The only final point I'd make, Your Honors, and I
17 appreciate the latitude, is that they had addressed our argument on the *Chang*
18 ground, which is Ground 4. And the slide that they pointed to, if we go to
19 their Slide 36, on -- the slide they point to is based on an unaltered version of
20 seal 600. But what AliveCor's advanced is an obviousness modification to
21 that seal. And they did not address that obviousness, the obvious
22 modification in their presentation. So with that, thank you, Your Honor.
23 JUDGE BARRETT: Thank you.
24 (Pause.)
25 MR. MONALDO: Thank Your Honors.

1 JUDGE BARRETT: We went ahead and are giving you an extra
2 minute, too.
3 MR. MONALDO: Okay. Thank Your Honors. Appreciate it.
4 Hopefully we won't need it, but I'll try to be brief.
5 So, I would just start first by pointing maybe to our Slide 16, and
6 really want to talk again about what this combined button is, in *Kim*. If you
7 see Slide 16 in our demonstrative, *Kim*'s telling you, all a combined button
8 is, is a combination of a physical button and a virtual button. It's a very
9 generic term. It's used in many different circumstances. Some have
10 fingerprint sensors, some don't. They have different considerations and
11 things of that nature in *Kim*. So, all *Kim* is doing is using this very generic
12 term to say, there's a combined button.
13 And so when there's any disclosure, it could be a different shape.
14 They say the combined button may be on this button, 764, it could be a
15 button 760. They're just talking about a very generic term in *Kim*. They're
16 not talking about any specific button. They're not saying oh, you could take
17 the Figure 10 button and put it anywhere, make it any shape, any size,
18 anything like that. It's just saying, the generic combined button, that we
19 define in our patent, can have these different characteristics.
20 JUDGE DANIELS: Mr. Monaldo, I'm not sure I understand your
21 argument very well. And I appreciate that they're using it sort of, you're
22 saying generically, I guess I would say broadly. Do you dispute that a
23 combined button would not include a home button, a power button or any
24 button?
25 MR. MONALDO: So, *Kim* talks about these different buttons. The
26 power button could be a combined button, the circular home button could be

1 a combined button. But all it's saying is, it's a very generic button, that has a
2 virtual component and a physical component. It's not saying that any of
3 these examples that we later describe as the circular home button, 760 can be
4 used in any different shape, in any different way, as the button 764 that's put
5 on a different surface of the device. None of that is disclosed in *Kim*.
6 It's not saying -- when it says, the combined button, it's referring to
7 just this very generic term. It's not referring to the button of Figure 10 or
8 any specific button configuration in its disclosure. You see, there's different
9 ones. There's, you know, Figure 9, Figure 10, Figure 11. There's a bunch of
10 different implementations of a combined button. But there's nothing that ties
11 the term, combined button to any specific one of them, and it's just talking
12 about this generic structure.
13 So when it says that Figure 18, button 764 can be a combined button,
14 it's just referring to that generic structure. It's not referring to Figure 10.
15 That's our position.
16 JUDGE DANIELS: But it does refer to all of these as combined
17 buttons. So, it is saying that all of these can be a combined button. And in
18 that way, I see some merit in their argument that there is some contextual
19 support. They are using it broadly. I'll grant you that, whether you want to
20 say generic or broad, whatever, but they do call all these buttons a combined
21 button, correct?
22 MR. MONALDO: That's right, but you see there's different
23 configurations of the combined button. It's not saying that any one could be
24 used in any location, in any shape. You have different characteristics of
25 them. We heard Patent Owner's counsel say Figure 9 couldn't be used with
26 Figure 10. Even though they're both the combined button, even though

1 they're both labeled 760, Patent Owner's counsel said you couldn't combine
2 those two embodiments, no, you couldn't do that. But you could somehow
3 take Figure 10, button 760, and use it as button 764 in the lateral surface in
4 Figure 18, when *Kim* specifically says it's still another embodiment when
5 describing Figure 10. We just don't see that disclosure.
6 And there's nothing that ties -- when Figure 18 says it's a combined
7 button, there's nothing that ties it to anything more than the generic term,
8 combined button. That's this combination of a virtual and physical button.
9 It's not tying it to Figure 10. There's just nothing in there that does that, and
10 there's no evidence of record, other than assumption by Patent Owner's -- or
11 Petitioner's expert, Dr. Berger. He just assumes it. Go back, like I said, look
12 at his declaration. He just assumes it.
13 He doesn't explain why someone would actually consider Figure 10 as
14 the Figure 18 button, and he doesn't address any of these issues. And a lot of
15 the issues we raise, you know, well you heard from Petitioner's counsel, in
16 rebuttal, about the size and shape, and the location, two things. Size and
17 shape, and location, nothing about the different orthogonality, nothing about
18 differences in how you have to route the electrical connection, nothing about
19 the missing layers, 707 and 708 in Figure 18, nothing about how you would
20 have to seal that button in a way that's different, when you're turned in a
21 different direction, nothing.
22 All they addressed were size and shape and location. None of these
23 other things were addressed, and it's AliveCor's burden to address them.
24 We also heard, for the first time today, I think, that there's some
25 extension of the display beyond what's shown in Figure 18. And I think
26 Petitioner has been very clear in what is shown in Figure 18, and you can see

1 that on Slide 20. On Slide 20 of Petitioner's demonstratives, at the right-
2 hand side, you see their annotation of Figure 18, and what do they point to as
3 the enclosure, it's this entire thing.
4 It's this enclosure, that's abutting the side of the bottom surface of the
5 button, and there's just been nothing that's talked about, that this display
6 somehow wraps around the entire button. None of that's in the record.
7 There's no evidence to support it. It's a new argument that we've heard for
8 the first time, on rebuttal today.
9 JUDGE DANIELS: Can you explain that a little bit more, in --
10 MR. MONALDO: Yes. I mean, if you look at it --
11 JUDGE DANIELS: In Figure 18, what is element 710?
12 MR. MONALDO: Yes. Element 710 is the display. And you see,
13 there's a line in 710, and you can see it on maybe our demonstrative, 15. So
14 the display wraps part of the way, partly around, right. We could -- well, I'll
15 give you that. It wraps partly around the display, but it stops at the bottom
16 end of that power button, 764. And you see it abuts what *Kim* says is the
17 enclosure, 720. So you see that shaded portion at the bottom, there's that
18 shading, to differentiate the display from the enclosure.
19 And clearly, the enclosure abuts the bottom surface of the display, or
20 abuts the bottom surface of the button. It's not the display surrounding it.
21 Okay, we never heard anything about that before today. There's no evidence
22 of record, talking about that. Completely new argument, inappropriate, and
23 not supported by the record.
24 What you have is that shading in Figure 18 that shows how the
25 enclosure is abutting the bottom surface of the button, and you just don't
26 have the same structure you do in Figure 10. It's very different. I mean, the

1 components are orthogonal to one another. Heard nothing about that. The
2 electrical connection would have to go a different direction. You heard
3 nothing about that. The seal would have to be different. You have the
4 enclosure abutting the bottom. You know, there's just a lot of differences.
5 And it's Petitioner's burden to address those differences. They just
6 haven't done it. They haven't given you any motivation to combine, haven't
7 given you any reasonable expectation of success. They haven't explained
8 how you would just simply take button 760, in a different embodiment,
9 Figure 10, and use it as the power button.
10 So, Judge Daniels, you asked me about some of the testimony of Dr.
11 Berger. I'll just give you a couple of citations, just to take a look at, when
12 we're offline. It's Exhibit 2004, his deposition transcript at Page 103, line 17
13 to 18. He's confirming that the surface area for the touch input impacts the
14 fingerprint recognition accuracy, something about these, how you'll be able
15 to implement a fingerprint sensor in a lateral surface of a device, such as
16 Figure 18.
17 I'll give you Page 70, lines 8 to 9. That's where Dr. Berger confirmed
18 that Figure 18 shows a different embodiment. Now, Petitioner's counsel will
19 say well, you know, he's just talking about location or something like that.
20 He's talking about -- he confirmed, there's a different embodiment. Figure
21 18 is a different embodiment. And when you have different embodiments,
22 you need to have some sort of motivation to combine them. And that's just
23 completely missing from the evidence.
24 I'll just point you also to Page 93, line 20 to Page 98, line 40, where he
25 has -- you know, deposition testimony regarding his declaration about Figure
26 10, *Kim*'s Figure 10. He's talking about Figure 10 in that description. But

1 again, I'll just reiterate the first answer to your question is that there's just
2 nothing to go on in his declaration. There's nothing to question him about.
3 He didn't address any of these details. We had nothing. And so, there's
4 really no reason to question him about those details.
5 So, in terms of what we heard on rebuttal for -- are there any other
6 questions on *Kim*? I just want to make sure we've fully addressed that. And
7 in their rebuttal, you heard nothing about overmolding, heard nothing about
8 *Kim* and overmolding, from anything we talked about. So none of that is
9 being rebutted today.
10 Going to *Jung* and *Meyers*, we heard a lever argument, absolutely
11 false. I'm not going to patent a response. Just read it, our entire section
12 talking about how these two references, combined, talk about how there
13 would be no sandwiching relationship. There's none in either reference, and
14 you wouldn't put them together in the way that AliveCor proposes.
15 You heard nothing about what we talked about earlier, the electrical
16 connection, the button support plate, how they're just taking a complete
17 button and trying to stack it onto to something else. Didn't hear any rebuttal,
18 you heard oh, they waived. Look at the paper, look at the evidence. There
19 is definitely no waiver here. That's entire part of argument and the thrust of
20 it in the combination.
21 And then I'll just speak briefly about the *Chang* obviousness
22 modification. They said oh, well we didn't address their obviousness
23 modification. There's no support for the types of modifications that you see
24 in their Patent Owner paper, so its petition. You can see, on our Slide 39,
25 the modifications of what they're showing. On the left part of Slide 39, you
26 see, highlighted in blue, the original -- what's actually disclosed in *Chang*.

1 It's the annular ring, 600, and you see at the right-hand side what they've
2 done.
3 They fill in parts of it. They have to keep a hole, because they know
4 they need some kind of electrical connection. But they just kind of fill it in,
5 and keep this particular -- that's not disclosed. Go look at it. They have one
6 sentence in *Kim* that uses the term, alternatively. And then from that one
7 sentence, they somehow create some different structure. And if you look at
8 their drawings, they have to create different things, different heights, of that
9 sealing member. You know, they have an etched-out portion. It's just
10 completely fabricated. It's not what *Kim* discloses.
11 And that one sentence talks about, alternatively, but it doesn't mean
12 that the, what is shown in Figure 6 is an alternative. If you look at that
13 paragraph, it just says that there is sealing member, 600, and it talks about
14 the figure. It starts off talking about the figure. And it says, alternatively,
15 the seal could have an annular structure, with -- and it talks about how it can
16 be an annular structure around the entire sensor module.
17 Look at it carefully. There's a lot of things that could be alternative.
18 But when -- that first sentence, they somehow say, that's not what's talking
19 about the figure. The figure shows something different. And that's when
20 you get to it, when you reach this alternative sentence. It's just not supported
21 in the record. There's no evidence that would suggest that you would make
22 these altered, or these various alterations.
23 And then when you look at Figure 10, the only vertical arrangement
24 between the flexible conductive member, 500, and the seal in *Kim*, 600 --
25 that's on, I think on Slide 40, or 41, both. So on Slide 40, you see how that
26 seal, it's very coplanar. Its only vertical relationship with these components

1 that are disclosed in *Chang*, if you look at *Chang*, it talks about that seal
2 between -- being located between the two components that are shown there,
3 or various components between that lower plate and the other structures.
4 It's not talking about sandwiching the seal ever. And you can see why
5 it wouldn't be obvious to make that seal, because you'd lose the seal
6 sandwich, you'd lose the electrical connection. We showed that, and you see
7 that on Figure 41. There's a gap there.
8 And just briefly, I just wanted to cite to one case, from Judge Moore
9 in the Federal Circuit, *In re Stepan*, it talks about the situation that we have,
10 with the *Kim* reference, where there's different embodiments in a reference,
11 and it clearly establishes that you have to have a motivation to combine, and
12 a reasonable expectation of success, black letter federal circuit of law, and
13 AliveCor has given you nothing. Unless there's any further questions --
14 JUDGE BARRETT: I think we're fine. Thank you.
15 MR. MONALDO: Okay, great. Thank you, Your Honor.
16 JUDGE BARRETT: All right. With that, these cases are submitted.
17 We'll go off the record now, and we'll see if the court reporter has any
18 questions about spelling or words or anything.
19 (Whereupon, the proceedings at 11:17 a.m. were concluded.)

PETITIONER:

Christopher TL Douglas
Scott M. Stevens
J. Ravindra Fernando
Erin Beaton
ALSTON & BIRD LLP
christopher.douglas@alston.com
scott.stevens@alston.com
ravi.fernando@alston.com
erin.beaton@alston.com

PATENT OWNER:

W. Karl Renner
Grace Kim
Ryan Chowdhury
Parvin Ghane
Jeremy Monaldo
FISH & RICHARDSON P.C.
axf-ptab@fr.com
gkim@fr.com
rchowdhury@fr.com
ghane@fr.com
jjm@fr.com