

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SMAXTEC INC. and
SMAXTEC ANIMAL CARE GMBH,
Petitioner,

v.

ST REPRODUCTIVE TECHNOLOGIES, LLC,
Patent Owner.

IPR2024-00875 (Patent 9,844,206 B2)
IPR2024-00885 (Patent 8,823,515 B2)

Record of Oral Hearing
Held: September 9, 2025

Before SHARON FENICK, JAMIE T. WISZ, and
ANDREAS BALTATZIS, *Administrative Patent Judges*.

IPR2024-00875 (Patent 9,844,206 B2)

IPR2024-00885 (Patent 8,823,515 B2)

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

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3 JUDGE WISZ: Good afternoon. Today we will hear arguments in
4 IPR2024-00875 concerning U.S. Patent Number 9,844,206 and IPR2024-
5 00885 concerning U.S. Patent Number 8,823,515. I am Judge Wisz. I'm
6 joined today by Judge Baltatzis and Judge Fenick. Judges Baltatzis and
7 Fenick will be joining remotely. And there has been a slight noticeable
8 delay in the audio coming in from remote judges recently, so please be
9 mindful of any questions coming from the remote judges.

10 Let's start with appearances, beginning with Petitioner.

11 MR. BUROKER: Your Honor, Brian Buroker from Gibson, Dunn
12 on behalf of the Petitioners.

13 JUDGE WISZ: Thank you. Patent Owner.

14 MR. MOFFETT: Your Honor, Daniel Moffett with Akin, joined
15 by Thomas Landers also with Akin on behalf of the Patent Owners. And I
16 believe joining but not speaking in the hearing, we have Megan Mahoney
17 also with Akin.

18 JUDGE WISZ: Thank you. And before we begin, I'd like to
19 remind the parties that we each have a copy of your demonstrative exhibits
20 that you provided. During your argument, please identify clearly and
21 specifically the demonstratives referenced by slide or screen number so that
22 everyone could follow along and to ensure clarity and accuracy of the court
23 reporter's transcript.

24 As set forth in our hearing order, each party has 60 minutes to
25 present their arguments. Petitioner will proceed first and may reserve time
26 for rebuttal. So Petitioner, how much time would you like to reserve for

1 rebuttal if any?

2 MR. BUROKER: Your Honor, I'd like to set aside 20 minutes,
3 please.

4 JUDGE WISZ: Sure. I believe you're set up. Yeah, you can begin
5 if you're ready.

6 MR. BUROKER: It's worked earlier when they tested it, but slow.
7 Okay. There we go. Can the remote judges see the slides as well? No?
8 Okay. So they can -- they have them, but they can't see them, correct?
9 Okay.

10 JUDGE WISZ: They do have copies. So yeah, if you can refer to
11 slide number, that would be helpful to follow along.

12 MR. BUROKER: Okay. Good afternoon, Your Honors. And
13 thank you for the opportunity to present argument on these two petitions.
14 smaXtec is asserting that challenged claims in both of the patents are invalid
15 based on the prior art. At a high level, these patents relate to the idea of a
16 herd management software system or animal management software system
17 that enables farmers or others to manage information about animals in a
18 herd, for example, a cow.

19 The claims were prosecuted in the Patent Office but were rejected
20 repeatedly until the Patent Owner required or added the limitation that one
21 of the things that would be monitored was milk production information or
22 days in milk in addition to temperature sensed information, which was well
23 known in the prior art according to the Patent Office examiner.

24 But that is exactly what the Trevarthen reference that's set forth in
25 the Grounds 1 and 2 in the first petition and another grounds in the second
26 petition discloses. In addition, the Laitinen and Liao and Buchanan

1 combination that we've presented disclosed that milk production information
2 being used for determining conditions about the animal, like illness or
3 whether the animal is in heat.

4 This is Slide 2. This lays out the overall grounds in the typical
5 order. I intend to proceed unless Your Honors have questions out of order. I
6 intend to go through the '206 grounds first in the Trevarthen and the Laitinen
7 order, and then I'll cover the '515. And the reason for this is that many of the
8 issues that we'll be discussing on the '206 Patent apply equally to the '515, so
9 there'll be less separate issues that need to be addressed when we get down
10 to the '515.

11 Slide 3 just lays out the specific grounds based on Trevarthen. We
12 argue that Trevarthen renders obvious Claims 1 to 4 and 6 in Ground 1. And
13 then we add the Brune reference in Claims 17 to 20 because it adds the idea
14 of a time, date stamp information.

15 So what is the Trevarthen paper and what does it disclose? The
16 Trevarthen paper discloses -- and here is Slide 4, I'm going to walk through
17 the -- at a high-level and quickly the claim elements of Claim 1 of the '206
18 Patent. It is a computer-implemented animal management system.
19 Trevarthen calls it the total farm management system and it's a herd
20 management software.

21 It talks about herd management software, which necessarily
22 according to a person of skill in the art would mean that it has a processor
23 with non-transient media that stores instructions. That's what software is.
24 It's a set of instructions stored in memory that operate on a processor. It
25 retrieves animal identification information from an RFID device.

26 That's what Trevarthen's paper is about. The idea of monitoring

1 cows that have RFID devices associated with the cow, tracking that
2 information in a centralized repository, and then making determinations
3 about what to do with that information from that central repository. In 1C,
4 the claim requires that you retrieve sensed information from the RFID
5 device. Trevarthen talks about sensing temperature, the temperature of the
6 cow, and storing that information then in the central repository.

7 In 1D, you match the sensed information based on an ID of the
8 animal with information in the database that includes an amount of milk
9 production or a number of days in milk. Trevarthen here again keeps and
10 tracks milk production information. It uses milk meters and says it could be
11 used to gauge the amount of milk flowing through the pipes from each cow
12 and associating that in the database with the cow.

13 Next, the claim requires taking sensed information and animal
14 information into a logical expression and then solving that logical expression
15 to obtain a value. Trevarthen says that you want to monitor the illness
16 -- monitor for illness of animals. And it says that milk meters help you to do
17 that because milk production is an indicator of an illness.

18 It also specifically says that fluctuations in the body temperature of
19 cows can indicate that they may be falling ill. So to the extent that
20 Trevarthen doesn't explicitly teach this limitation, it would have been
21 obvious to use both milk production information and temperature
22 information, both of which were known to determine illness, to give you a
23 better and more accurate reading when a cow is ill.

24 This we submit is clear from the teaching in the prior art where it
25 says that more information to reach a variable is more valuable than less
26 information. And we've cited a number of papers that also say that it was

1 well known in this industry that temperature and milk production are key
2 factors in determining whether a cow is sick.

3 So what does Patent Owner raise? These are the issues presented
4 in their Patent Owner's response and sur-reply. The first issue is whether
5 Trevarthen is a printed publication. And we submit, clearly, the evidence
6 demonstrates that it was. Next, they argue that it wouldn't have been
7 obvious to combine milk production and sensed information, and we believe
8 the evidence demonstrates that it was obvious.

9 They also dispute whether we've demonstrated that the claims
10 program instructions are present in Trevarthen. That issue is also clearly in
11 the petition. And then they raised issues with respect to Independent Claims
12 4 and 6. So this is the order I want to go in. The first issue and this of
13 course covers both the '206 Patent and the '515 Patent because Trevarthen is
14 prior art in both petitions.

15 They argue that Trevarthen is not a printed publication. Let's start
16 with what's not disputed. It's not disputed that the Trevarthen thesis was
17 published in a system at his university, the University of Wollongong in
18 Australia. The system was called Research Online and it was up on that
19 system by October 22nd, 2006. That's almost three years before the priority
20 date at issue here.

21 And as you can see, it's been downloaded almost 3,000 times. It's
22 not in some obscure location, many, many downloads have occurred. We
23 know from the Internet Archive 2009 edition of the website about Research
24 Online that its goal was to get these papers on Google as quickly as possible.
25 They wanted the students' papers to be disseminated widely so others could
26 benefit from them. And that's exactly what the system was designed to do,

1 and it actually achieved its goals.

2 This is Slide 14. Sorry, if I didn't announce the last slide. Slide
3 14, this is from the Wayback Machine. We know that the Trevarthen paper
4 was downloaded 324 times as of September of 2007. And by March of
5 2008, it had been downloaded 569 times. That is a lot of downloads. That is
6 not friends and family as Patent Owner suggests. That is not -- even if there
7 are duplicate counting, that's still a significant distribution of this paper to
8 lots of people on the internet.

9 Now, what does Patent Owner argue? Well, they say that we have
10 an obligation to demonstrate that it actually was available on Google. And
11 they cite the Blue Calypso case. But that's not what Blue Calypso says. If
12 Your Honors read that case, public availability is a multi-factor test. And
13 one of the factors that the court in that case was looking at was to see
14 whether it had been available on Google. But in that case, in Blue Calypso,
15 there had been no evidence that the document had actually been accessed.

16 Here, we have evidence, going back to Slide 14, that 569
17 downloads had occurred as of March of 2008. Now, Slide 15 is a --

18 JUDGE BALTATZIS: Counsel?

19 MR. BUROKER: Yes, go ahead.

20 JUDGE BALTATZIS: If I could interrupt for a minute, what
21 -- not to get to Patent Owner's argument, but they do raise the issue of how
22 the accuracy of these -- the download numbers. I mean, what's the relevance
23 here of the number of times that it's downloaded? And what's -- you know,
24 is there a certain cutoff where it is more publicly available than not based on
25 the download numbers?

26 MR. BUROKER: I don't think that Federal Circuit has laid out a

1 strict number. But certainly, public dissemination has been in the Federal
2 Circuit case law for a long time. The more widely distributed it is, the more
3 likely the Court is to find that it's a printed publication. Ultimately, your
4 role as factfinder is to weigh the evidence. We believe that many hundreds
5 of downloads is sufficient enough for the Court, for the Board to find under
6 the Court's precedent that that is a printed publication.

7 Now, even if there were double counting and even if it was friends
8 and family, that still demonstrates many, many downloads of the
9 information. So it's one factor that's very important in the -- in this Board's
10 determination. There's not a strict cutoff, but we would submit that
11 hundreds is sufficient under the case law. I think there's a Nortel case, I
12 don't know if we cited in the briefs. But, Your Honor, it reminds me of the
13 case where it was like 50 or 60 people in an organization and that was found
14 to be a printed publication. So I think it does -- it's not a super high number
15 to be able to show that it was widely distributed, widely disseminated, and
16 therefore printed publication.

17 This Slide 15 is responsive to the argument that they make that
18 when their expert ran date-limited searches on Google, they didn't find the
19 Trevarthen paper. What we're highlighting here is that we then ran similar
20 tests in our reply brief and in our reply declaration. This date-limited
21 searching that they did on Google showed up with results from 2022.

22 So there's something wrong with the date-limited searching that
23 makes that unreliable as evidence that you wouldn't have found Trevarthen
24 back in 2009. And what they don't talk about is Google Scholar. This is
25 Slide 16, sorry. If you run date-limited searches on Google Scholar, you do
26 find Trevarthen. So that's another avenue that we did identify in our petition

1 at page 9 as evidence that this is a printed publication.

2 But the ultimate evidence that we think is very compelling here is
3 that in 2008, a patent examiner in Australia did an international search
4 report. And he or she found Trevarthen using internet searching. This is
5 evidence alone that a person of skill in the art was able to and did locate
6 Trevarthen relevant -- prior to the relevant priority date.

7 We've highlighted here, this is the search history that the examiner
8 indicated that he or she used and internet was the tool and the terms cattle,
9 RFID, and gate were some of the key terms that were used. And we note
10 that the URL for Trevarthen is included in the international search report.
11 We think that's important because if a person of skill in the art located this
12 international search report, he or she would then automatically be able to get
13 to Trevarthen because they would have to just copy and paste this URL.

14 This is another indication that this document is a printed
15 publication. And we think that it is almost un rebutted in an In re Valve case.
16 The Federal Circuit talked about documents appearing in international
17 search reports that that's indicative of something being a printed publication.
18 So that's the printed publication issue; it applies in both petitions.

19 The next issue they raise is whether or not combining milk
20 production and sensed information would have been obvious. So the
21 purpose of Trevarthen was to build upon existing -- this is Slide 18, sorry
22 -- RFID usage and enhance and improve it. And it specifically -- this is
23 Slide 19 -- has two different sections in Trevarthen. In Chapter 6, where it's
24 laying out, here are my improvements, and it's talking about that monitoring
25 the body temperature of a cow can be useful for indicating that a cow may
26 be falling ill, that's on page 121 of Trevarthen. And on 115 of Trevarthen, it

1 talks about using milk meters to identify any problems that may arise in the
2 herd, such as illness.

3 So it's teaching a person of skill in the art if you want to look out
4 for illness in your cows, which is important, you want to avoid illness from
5 spreading and infecting the entire herd, temperature is important and milk
6 production is important. And it's well known at the time that having more
7 variables to determine illness is important, this is Slide 20. This is a quote
8 from the deposition of their expert who acknowledged that having several
9 variables can be advantageous.

10 So, they've raised a number of issues -- and I'm going to save some
11 of these for rebuttal. They raised a number of issues why they argue that it
12 wouldn't have been obvious to combine temperature and milk production
13 information. But each of those is clearly rebutted in our reply.
14 Temperature-sensing devices were available. It's specifically discussed in
15 Trevarthen. It was well known that people would use multiple parameters to
16 generate more than one illness.

17 And then we cited two papers -- let me skip ahead to -- yeah, this is
18 Slide 23. We cited two papers, van den Berg and de Mol, both of which talk
19 about -- this was well known in the art that the indication of illness, it's
20 important to look at both the temperature of the milk and the milk yield.
21 This is from van den Berg, similar information is in de Mol, yield and
22 temperature, that's at the bottom of the slide here, pages 180 to 181 of de
23 Mol.

24 It was well known in this industry that those are two really
25 important things to determine illness. That's the goal of Trevarthen. So we
26 submit it would have been obvious to a person of skill in the art to use both

1 temperature and milk yield or milk production information to make that
2 determination.

3 The next argument they raise, this is Slide 26, Claim 1 requires
4 program instructions executable to and then it lists five --

5 JUDGE BALTATZIS: Counsel, before we go on to the next one, I
6 just want to confirm. So it is at least for the '206 Patent and to the extent for
7 the '515, it is like a single reference obviousness and Patent Owner makes
8 the argument the Stepan case that you have to still have a reason to combine
9 various disclosures in the reference, right? So in Trevarthen, you have the
10 Cochrane case study, but then you also have these future improvements.
11 What's the argument there for combining them, you know, the motivation to
12 combine these different disclosures in the reference?

13 MR. BUROKER: Well, I'm going to go back to Slide 18. And
14 Your Honor, I think the proper way to read Trevarthen -- this was a thesis
15 paper. In the first several chapters, he explains the technology. Chapter 4,
16 he analyzes how RFID technology is used at one farm. Chapter 5, he
17 explains how the RFID technology is used at the Cochrane Dairy. And then
18 6 is where he says, well, I've looked at all of this before and here is what I
19 think are going to be improvements to that preexisting technology.

20 So he's basically saying, take what's disclosed, what I describe as
21 being used at Chapter 5 at the Cochrane Dairy, and you build upon it. That's
22 the teaching and motivation to combine. He's saying, use everything before.
23 And we've got highlighted here in the Slide 18, this chapter will attempt to
24 build upon the current RFID usage.

25 So it's not -- they're not -- they're different for sure, but it's
26 different in the sense like if you have a car, it's a basic model of the car, and

1 then you have a car that's got the power steering and the sunroof and all that.
2 Technically, they're different cars, but certainly they are both Honda
3 Accords, for example. They're both built on one another. And here, Chapter
4 6 builds upon the Chapter 5 disclosure. That's your motivation, that you
5 would use -- this is teaching somebody, hey, I've got a better way to do it, so
6 I'm going to take everything I've learned about their use in Chapter 5 and
7 build on it in Chapter 6.

8 Okay. Program instructions executable to -- well, Trevarthen
9 doesn't use the word program instructions or processor as they point out.
10 But a person of skill in the art would understand that when Trevarthen
11 discloses herd management software, software is instructions, software is
12 stored in memory, and they're operated on a processor. So we believe that
13 this is sufficient evidence to demonstrate that Trevarthen discloses the
14 element of the processor or the program instructions limitation.

15 Now, they also raised some separate issues for Dependent Claim 4.
16 Dependent Claim 4 adds a couple of requirements to Claim 1. It says that
17 the animal information that's sensed is physiological information, well, that's
18 temperature. Then it says that the animal information that's stored is health
19 information associated with the animal. And then they say that the logical
20 value indicates an occurrence of an illness.

21 So we've already talked about how our argument is that the
22 combination of Trevarthen, that a person of skill would find it -- the
23 modification of Trevarthen to be used for purposes of determining illness.
24 So what's different here? It's the recitation of health information. And our
25 petition, and the declaration that supports it, specifically says in addition to
26 storing temperature and milk production, you can also have treatment.

1 So the health information is milk production and its treatment
2 that's disclosed. And we believe that that's sufficient disclosure to meet this
3 requirement of the claim. The claim doesn't actually require that all of the
4 health information is used in the logical value at all. In fact, this language
5 doesn't say that the health information has to be used as part of the logical
6 expression at all. All you need to use is animal information. And in our
7 proposed modification of Trevarthen, that animal information would be milk
8 production information, which is used to determine illness.

9 Claim 6, another dependent claim, the gist of Claim 6 -- and I hate
10 to use that term, but the idea of Claim 6 is that you monitor this logical
11 expression is based on a period of time, and you're looking to determine a
12 selected number of illnesses. Again, Trevarthen is talking about tabulating,
13 looking for illness. It's also talking about having multiple -- here, Slide 31,
14 you want to look for multiple temperature readings. So if you have multiple
15 temperature readings, you do that for purposes of looking for, quote,
16 "variations in temperature." And that's the selected period of time, the
17 period between one temperature reading and a second period -- a second
18 temperature reading. So we believe that Claim 6 is also obvious in view of
19 Trevarthen.

20 And I would move on. Ground 2 of this '206 adds the Brune
21 reference. And that's because Claims 17 to 20 talk about that the retrieving
22 date-time information from the RFID device. Trevarthen doesn't specifically
23 say whether the RFID devices it's using keep date-time information. But
24 that idea was well known in the Brune reference.

25 Brune is another piece of prior art in which a remote receiver is
26 embedded in the stomach of a cow. Temperature data information is

1 included and also date-time stamped information. We submit that it would
2 have been obvious -- this is Slide 35, it would have been obvious to use
3 date-time stamped information rather than just using an RFID device that
4 just tracks temperature.

5 And why is that? Well, it's going to be more accurate; you can
6 take more readings. The Trevarthen system would read the RFID device
7 when the animal would pass by certain locations, like in and out of the barn
8 or at feeding locations. But that is arbitrary; you don't know when the cow
9 is going to do that. With a date-time stamp, the RFID system would take
10 measurements at certain periods of time and could be therefore more
11 accurate. And that's disclosed in the petition. It would have been obvious to
12 do that because it's more beneficial.

13 Slide 36, they argue, well, date-time information in the animal as a
14 disadvantage. But those disadvantages are not actually present in Brune. It
15 doesn't mention battery life or any concerns about the RFID device dying
16 before the animal's lifespan.

17 Now, I'll move on to the Laitinen grounds. We're still at the '206
18 Patent. But Laitinen is another piece of prior art, this is Slide 37, that lays
19 out Grounds 3 and 4 where you have Laitinen, Buchanan, and Liao for
20 Claims 1 to 4 and 6, and then Laitinen and Brune for 17 to 20. Brune is
21 added again for this idea of date-time stamp information, and the Buchanan
22 and Liao add to Laitinen. Let me explain why.

23 This is Slide 38. On the bottom left here of Slide 38 you see
24 Figure 2 from Laitinen, and it is a system for the surveillance of animals.
25 And you can see in the bottom left-hand corner -- actually, I'll go to the next,
26 Slide 39. There is a computer system with application programs running on

1 it. That is the processor. It talks about using RFID devices to retrieve
2 animal identification information, this is Slide 40.

3 And importantly, Slide 41, those include central sensor units that
4 are for purposes of the surveillance of the animal's body temperature. And
5 the purpose of Laitinen is to try to determine when the animal is in heat
6 and/or whether the -- when the animal might be ill again. And the heat
7 information is important to the farmer because it's one of the inputs that
8 farmers use to determine whether or not the animal is ready for artificial
9 insemination, an important factor in the managing cows.

10 So the next step, matching sensed information to information about
11 milk production. Well, Laitinen doesn't actually talk about milk production
12 information. But, again, you have Buchanan and Liao. And these are two
13 more pieces of prior art that talk about the benefit of monitoring milk
14 production information, milk yield, to determine when the animal is in heat.
15 That's the goal of Laitinen, we want to monitor when the cow is in heat.
16 Liao teaches the benefit of using not only temperature but milk yield.

17 So a person of skill in the art, this is Slide 43, would have found it
18 obvious to combine temperature and milk to make these insemination
19 decisions. Laitinen already uses multiple variables, including body
20 temperature. It would have been obvious to add additional variables,
21 including milk production and days in milk to make that determination.

22 Now, this is Slide 45. They raise similar arguments. They argue
23 that it wouldn't have been obvious to combine temperature and milk
24 production information. They argue again about whether Laitinen has
25 program instructions. They argue about whether Laitinen has implanted
26 temperature RFID devices. And then we, again, argue over dependent

1 Claim 4.

2 Again, Your Honor, I think it's very clear in our view that person
3 of skill in the art would have found it obvious to use multiple variables to
4 determine whether the animal is in heat. That's the purpose of Laitinen.
5 This is Slide 46. The purpose is to monitor the animal's heat with a pico
6 level device. Body temperature and movement are usually measured.

7 Slide 47, we know from van den Berg and de Mol that when you're
8 looking to determine whether an animal is in heat, milk flow -- temperature
9 of milk flow and milk yield are important. And that's similar to what's said
10 in de Mol. So not just temperature but using milk yield, That's well known.
11 And Slide 48, therefore, it would have been obvious to combine milk yield
12 and temperature to help make that determination of whether the animal is in
13 heat or whether the animal is ill.

14 Now, they argue we didn't disclose program instructions. This is a
15 similar argument we went through for Trevarthen because here, again,
16 Laitinen may not say the words program instructions, but it discloses using
17 information systems. And Figure 2 shows that it uses application programs.
18 That's what application programs are. They're program instructions that
19 operate on a computer.

20 Next issue, they argue Laitinen doesn't disclose an implantable
21 device that measures temperature. This is Slide 50. So they want Your
22 Honors to focus on the top of Figure 2. And the top of Figure 2 has a large,
23 dotted box 100a that's labeled external control device. And in there it says
24 temperature, movement/location. They say, aha, temperature information is
25 only measured in the external device, the Claims 2, 3, and 6 require
26 measuring device that is internal to the cow.

1 But that ignores the language in Laitinen that we've got here in the
2 top right of Slide 50 from column 3, lines 51 to 57. It says a sensor unit
3 connected to the microcontroller for the surveillance of the animal's body
4 temperature or other factors. Then it says the sensor unit can also be an
5 implant inside the animal. So there's an explicit disclosure of using an RFID
6 device for measuring temperature that's internal. So it's an alternative
7 disclosure to what's shown in Figure 2. And that's the disclosure that, again,
8 then is -- there's another place in column 5, line 38 to 43 of Laitinen that
9 talks about these devices being implanted inside the animal's tissue.

10 Claim 4 is health information, Laitinen again discloses tracking
11 health information about the cow. So we think that that's pretty clearly
12 shown for Dependent Claim 4. Now that's the argument as it relates to the
13 '206 Patent. The '515 Patent, many of the issues are the same. One of the
14 issues that's different -- this is Slide 52 that lays out the grounds here.
15 Ground 1 is Trevarthen in anticipation or obviousness for Claims 1 to 2.
16 And I think Your Honor mentioned that earlier.

17 And then Ground 2 is another obviousness combination based on
18 Brune related to the date-time stamp feature. And then the third ground is
19 Trevarthen plus Rollins and that deals with all the claim limitations that deal
20 with networking the computer system. So I'm not going to go through the
21 claim-by-claim analysis again, this is Slide 59. We already talked about the
22 fact that Trevarthen was publicly available.

23 I want to talk about Issue 2 for -- this is Slide 60. Again, for
24 anticipation, Patent Owner argues that we need to show a clear linking
25 between different embodiments. And I think this is the question Judge
26 Baltatzis asked earlier -- sorry, I'm mispronouncing your name.

1 JUDGE BALTATZIS: It's pretty good. All right.

2 MR. BUROKER: And there was some discussion of the In re:
3 Arkley case in the institution decision. That's an old CCPA case that talks
4 about the idea that if you have multiple unconnected examples in a patent
5 that you need to have some disclosure that teaches a skill -- a person of skill
6 in the art to combine those two different examples. But that's not the case
7 here.

8 Again, going back to Slide 60, Chapter 5 describes the Cochrane
9 Dairy. Chapter 6 says, let's take what was in Chapter 5 and build on it and
10 let's make it better. That's the kind of teaching that we believe allows you to
11 say this is a single reference anticipation ground because it's taking what was
12 disclosed before and building upon it.

13 These are not different examples to the extent that they quote
14 -- they asked our expert in her deposition, she said, yeah, there are different
15 systems. That doesn't mean that they're not connected. And here is the
16 connection in the language of the very beginning of Chapter 6 that says,
17 we're going to take what was before us and build upon us.

18 So the case law supports us that this is single reference
19 anticipation, even though we cite sometimes to things in Chapter 5 and
20 sometimes to Chapter 6 because Chapter 6 builds on those things in Chapter
21 5 or even the preamble discussions in Chapter 2.

22 And again, if there are a limited number of examples, the
23 Kennametal case, this is Slide 62, supports the finding that can be
24 anticipation if there's a limited number of examples. And here, arguably,
25 we're just combining the disclosure from Chapter 5 with what's disclosed as
26 improvements in Chapter 6 that's a limited number of examples on the

1 Kennametal case. The next argument --

2 JUDGE WISZ: Counsel, sorry to interrupt. So following along
3 that line of argument then would you argue that any of these improvements
4 in Chapter 6 really are within that group of limited examples that you're
5 talking about? And one of skill in the art would look at all these
6 improvements and readily envision them potentially as one system? Is that
7 what you are arguing?

8 MR. BUROKER: That's what I'm arguing, yeah. I think the way
9 that you read Chapter 6 is for this student is to say, here's everything I saw
10 before, and in Chapter 6 I'm going to go through a list of all the different
11 things that I think you would add to an improved system. So I view it as one
12 improved system, as opposed to however many improvements he proposes
13 viewing that as 10 or 15 different improvements being each different
14 systems, it's really one improved system. That's the way I think -- the proper
15 way is to read Chapter 6. And so there's really -- in our view, there's the
16 Chapter 5 Cochrane Farm example, and then there's the Chapter 6
17 improvement example.

18 So the next issue is whether or not -- because '515 claim requires
19 that there'd be a reading of the RFID reader -- sorry, that the RFID reader is
20 connected to a computer. This is Slide 63. Trevarthen specifically says in
21 the Cochrane system, as each cow passes through the RFID reader, their
22 individual information is displayed on the two computer screens. The only
23 way in which the information could be on the computer screens is if the
24 reader information has been then uploaded to a computer.

25 And then Chapter 6, again, builds on that idea and says, well, you
26 might want to add wireless devices so that you can network the information

1 from the RFID readers to the mainstream computer. So we think there's
2 clear disclosure again in Trevarthen of connecting the RFID reader to a
3 computer.

4 The next argument is whether or not Trevarthen discloses
5 implanted RFID devices. In this claim, it's pretty clear there was a claim
6 construction issue in the institution decision. It was pretty clear that the
7 Board felt that the claims required implanted in meant that the RFID device
8 had to be in the animal and not just an ear tag. But Trevarthen page 99
9 specifically discloses in Chapter 6, RFID tags, boluses, or microchips. So it
10 specifically says you can use RFID boluses and that term specifically means
11 a tool that's implanted in the animal.

12 Now Slide 65, here, we're at Trevarthen plus Brune again. The
13 benefit of using dates-time stamp information in the RFID device I talked
14 about earlier that would equally apply here in connection with Claims 3 and
15 4 of the '515 Patent. I believe that the arguments that we made earlier cover
16 this and that you would have lots of advantages to using date-time
17 information on the RFID device itself rather than relying on external devices
18 for making that date-time information.

19 Now, they make the argument that the Trevarthen system doesn't
20 disclose retrieving sensed information from an RFID device. But, again,
21 there's a discussion in Trevarthen specifically says -- this is Slide 66, sorry
22 -- RFID temperature-sensing is currently available technology and its use in
23 the livestock industry is currently being investigated. That's not a teaching
24 away. That's an explicit disclosure to use RFID temperature technology in
25 the system. And again, there was issue about whether or not you would
26 combine that with existing systems. And we believe that that's clearly the

1 case based upon the teachings and knowledge of the skill in the art.

2 Slide 68. These are the Laitinen grounds as they apply to the '515,
3 a lot of the same issues as we covered earlier. So I'm not going to -- let me
4 skip ahead to Slide 77. The issues that we believe they raised for these
5 grounds in the '515 Patent related to the Laitinen, one, the issue about
6 whether it would have been obvious to use both temperature and milk
7 production information. That's the same issue I addressed earlier.

8 Our papers clearly established the person of skill in the art would
9 have wanted to use both of those information both for health -- excuse me,
10 for illness detection and determining when the animal is in heat. They also
11 argue that Laitinen doesn't disclose an implanted RFID device. I believe I
12 did talk about that, but I want to show you one or two more slides on that.
13 And then the third issue is whether or not Laitinen discloses retrieving an
14 amount of animal identification information.

15 Here is the last issue, it specifically says in our petition, this is
16 Slide 78, it was known to retrieve animal information from a conventional
17 -- excuse me, sensed information from a conventional identification tool. So
18 we believe that the petition clearly sets forth evidence that Laitinen retrieves
19 animal identification information from the RFID device in the animal.

20 The last issue I want to raise is whether or not it would have been
21 obvious to include an RFID device as part of an ingested bolus RFID --

22 JUDGE BALTATZIS: Counsel, we lost -- at least I've lost audio.

23 JUDGE FENICK: I have as well.

24 JUDGE BALTATZIS: No, can't hear you.

25 MR. BUROKER: This is Mr. Buroker. Can you hear me?

26 JUDGE BALTATZIS: Maybe try again. I think I heard your --

1 MR. BUROKER: There, can you hear me?

2 JUDGE BALTATZIS: Yes.

3 MR. BUROKER: Okay. Right. Well, as luck would have it, I
4 only have a minute or two left. But the last point I wanted to make was
5 about -- we go back -- whether Laitinen discloses or renders obvious an
6 implanted RFID device. I think I explained earlier that Laitinen Figure 2
7 shows the temperature-sensing device being external, but then Columns 3
8 and 5 explain that it can be implanted. And so we think for Issue 2, the
9 evidence demonstrates that Laitinen disclosed that. And that Laitinen, in our
10 petition, we explained how it retrieves an amount of animal identification
11 information as well.

12 With that, I want to reserve whatever time I have remaining for
13 rebuttal. And also, to the extent that Patent Owner wants to talk about its
14 motions to exclude, I can respond to those at the time, if that works for Your
15 Honors. Thank you.

16 JUDGE WISZ: Yes, thank you, Counsel. Now, Counsel, you can
17 begin when you're ready.

18 MR. MOFFETT: Thank you, Your Honors. Again, my name is
19 Daniel Moffett, along with my colleague, Thomas Landers, we're pleased to
20 be here on behalf of the Patent Owner, ST Reproductive Technologies. Mr.
21 Landers and I will be splitting up the presentation today. And before I
22 explain how we're dividing that, I do want to move to Slide 1.

23 Just briefly, in view of some of the things Mr. Buroker said to kind
24 of reemphasize our view of the patents and the claims of what they describe,
25 and that is that the patent, both '206 and '515, are claiming an integrated and
26 cohesive animal management system that combines data from the various

1 sources in the claims, including implanted RFID reader in some claims with
2 a sensor for sensing animal data, physiological data with additional data to
3 identify animal condition.

4 And as in Claims 4 and 18 of the '206 specifically identify current
5 illness. And this is distinct from the prior art, including Trevarthen, which is
6 not a Honda Accord in our view. Trevarthen identifies a theoretical stand-
7 alone approach to various farm tasks. I think Mr. Buroker said that
8 Trevarthen calls itself a total farm management system. That's not the case.

9 Trevarthen never says it's a total farm management system. It says
10 towards total farm management. These are various distinct approaches. It's
11 not a unified system. It never called it a system. In fact, Petitioners in
12 neither petition do they make any hay out of total farm management. You
13 won't find that phrase in the '206 or '515 petitions. So I do want to keep that
14 in mind as we go through the discussion.

15 If we move to Slide 2, this is the overview of how we plan on
16 proceeding because there's two of us who are kind of approaching slightly
17 different than Mr. Buroker. I'll be addressing the Trevarthen base grounds in
18 both the '206 and '515 Patent. And Mr. Landers will be addressing the
19 Laitinen base grounds in both patents. And if there's time or any questions,
20 Mr. Landers will also be addressing our motion to exclude.

21 But we do think the place to start is where you typically start with
22 respect to Trevarthen and that is whether it qualifies as prior art at all. At the
23 institution decision, we believe the Board gave credit for a more
24 comprehensive argument than the Petitioners actually made. And it's
25 Petitioner's burden to establish prior art status. And the Board, it's not your
26 job, it's not our job to fill in the gaps and kind of make a different argument.

1 The argument that's actually made is that Trevarthen is an
2 electronic reference available on the internet and located through search
3 engines, such as Google or Yahoo. This is not a case where at the university
4 they contend there's a paper copy of this undergraduate thesis and you can
5 find it in the card catalog. It's not that case.

6 They talk about Research Online. They are not contending that the
7 reference is locatable on Research Online and its search functionality.
8 There's no evidence whatsoever. The international search report is not being
9 relied on contrary to what I heard today. And I'd ask you to review the
10 briefs as some sort of research aid that would have led to Trevarthen.

11 Instead, it's relied on as corroborating that searching the internet
12 would uncover Trevarthen. And to meet its burden under the theory they
13 presented, that's where Blue Calypso comes in. They have to establish
14 accessibility via search engine by showing evidence that a query of a search
15 engine before the critical date would have led to Trevarthen.

16 And the mere fact that it's on the internet or that it had been
17 purportedly downloaded, which are our expert says these are unreliable
18 numbers a few hundred times. Notably, well over a year after, according to
19 Mr. Buroker, where Research Online indicated it should have been findable.
20 We don't know who did those downloads.

21 That's not the test. The test is what have been findable with the
22 search. And the only evidence on point on the actual question under the
23 theory Petitioners proceeded with comes actually from Patent Owner even
24 though it's not our burden. And that is using the Google custom date range
25 search tool, which both Ms. Knoff, a master of -- who has a Master of
26 Library and Information Science, and Dr. Bowser, who testified in his

1 declaration that he regularly relies on this tool in his research as with persons
2 of ordinary skill in the art. And both of them conducting that search date
3 range concluded that Trevarthen would not have been findable on Google
4 before the critical date.

5 And moving to slide -- I'm sorry that was Slide 4. Moving to Slide
6 5. Petitioners' expert also failed to find Trevarthen using this search
7 functionality. Now, she ran the search, according to Mr. Buroker, to suggest
8 that something's wrong with this methodology. But all she concluded is that
9 it may be over inclusive had it found later documents. That does not suggest
10 that Trevarthen, had it been indexed and findable through Google, just
11 somehow wouldn't appear using the Google search function, the Google date
12 range tool. He also --

13 JUDGE BALTATZIS: Counsel.

14 MR. MOFFETT: Yes.

15 JUDGE BALTATZIS: Before you move on to that, what would
16 you think about the -- there are evidence of doing or being able to find it on
17 Google Scholar. Do we have two competing searches here, one done on
18 Google and one done on Google Scholar to balance?

19 MR. MOFFETT: Actually, no, Your Honor. I heard the same
20 thing you did from Mr. Buroker. They actually did not conduct any date
21 limited searches on Google Scholar. If I jump forward a bit to Slide 8. Slide
22 8, Petitioners, actually, they did the first Google Scholar search as part of the
23 reply. And even there, they acknowledge it's not possible to recreate a
24 search of Google Scholar that would have revealed what was on there in
25 2009.

26 I'd also ask you to go back and look at Petitioners' preliminary

1 reply before institution where Petitioners are the ones that argued, citing an
2 institution decision, Seabed, that a contemporaneous search of Google
3 Scholar is irrelevant. It doesn't tell us anything about availability, product,
4 or the critical date. What this does tell us something is the Google date
5 range tool which has been recognized by the PTAB in the past and a
6 decision affirmed by the Federal Circuit as an appropriate tool.

7 I do want to touch on the international search report. And, again,
8 to emphasize that it was only relied on to further corroborate that Trevvarthen
9 would have been found using Google search on the internet. Again, not
10 -- we should not give them credit for an argument they did not make. It's not
11 a research aid that would lead you to Trevvarthen. That is not their argument.

12 And so Slide 6 shows us all that the international search report tells
13 us, which is that the -- that an examiner identified Trevvarthen, that the
14 examiner said conduct -- consulted some databases. We don't know if
15 Trevvarthen was found on any of these, which one, if any. And what we do
16 know is from Dr. Brown-Brandl, who actually testified as the Petitioner's
17 expert that pretty much all of these databases identified would not return to
18 Trevvarthen.

19 She went through the list and said, look, these just find patents.
20 Now, she thinks that's a point in her favor because she says, well, therefore it
21 must have been -- jumping to her point on Slide 7, well, then it must have
22 been on the internet. That's pure speculation and it does not satisfy
23 Petitioner's burden.

24 This is distinct from the Valve case where the examiner actually
25 stated that the reference was found through a brief internet search. Brief was
26 important in that case too -- I would direct you to the case -- because

1 findability with reasonable diligence is a factor. So Valve is not suggesting
2 what Mr. Buroker said it did. And in fact, what we do know is that it's not
3 speculation is that using the Google date range tool, you would not have
4 uncovered Trevarthen prior to the critical date.

5 JUDGE BALTATZIS: Counsel. Before we move on to the next
6 issue, I just want to check -- just kind of explore this issue of a brief search.
7 I mean, what depth of search is the cutoff for reasonableness? What if it is a
8 more -- is brief that important or is it just as corroborating that this reference
9 was found in a search by the examiner? We have no idea whether it was
10 brief, whether it was comprehensive. All we know is that it was identified in
11 this search report, you know. What difference does it make whether or not
12 it's brief?

13 MR. MOFFETT: Well, one clarification, Judge Baltatzis, is we
14 actually don't know that it was uncovered with a -- from a search of the
15 internet. So just to clarify that, we don't know that from the search report.
16 But as far as what Valve tells us, I don't have a threshold or number or how
17 diligent one must be. But I would say if we look back at what the
18 Petitioner's expert did, she ran this date range search.

19 She said, I didn't go through every page. But in the pages, we did
20 not find Trevarthen. I think there's a pretty good example. We all know that
21 Google can be almost -- just grow for weeks. Obviously, we have a very
22 motivated expert, Dr. Brown-Brandl, who would have loved to have found
23 Trevarthen in those search results, and she did. That's not a brief search that
24 found it. So I think that's pretty good evidence that it's to the extent it's on
25 there and she contends, that would be an example of not findable with
26 reasonable diligence.

1 Turning on to the -- moving on to the merits unless there are any
2 other questions about public accessibility. I'm on a sort of a roadmap, Slide
3 9. With respect to the '515 Patent, as Your Honors had touched on, there is a
4 unique argument, namely that Trevarthen anticipates the '515 Claims 1 and 2
5 in Ground 1, and they have a fallback argument that it's obvious -- single
6 reference obviousness. I do -- Patent Owner very much disputes this.

7 This is not a -- at one's envisioned type case. We're relying on
8 Cochrane Farm's RFID readers in a milk parlor. We're relying on implanted
9 bolus in an RFID. We're relying on Biotherm temperature sensors implanted
10 under the skin. This is a collection of concepts in Trevarthen that are
11 -- frankly, it doesn't rise to anticipation.

12 And they do not have an independent obviousness argument by
13 -- they, Petitioners, essentially say -- if I jump forward to -- well, first of all
14 -- hard to read the slides, I'm sorry. Slide 12, as Mr. Buroker acknowledged,
15 even their expert acknowledges, that these aspects that they rely on for
16 different elements of the claims from the various chapters, the Cochrane
17 Farm chapter, the theoretical framework chapter, these are talking about
18 different systems.

19 And that's not sufficient for anticipation. They have a catchall
20 obviousness argument, single reference obviousness argument. But Slide 14
21 is essentially that argument in the '515 petition and that is, hey, we've shown
22 you it's anticipated and it's well settled that a disclosure that anticipates also
23 renders that obvious. That is not the burden.

24 They haven't, A, shown it's anticipated and, B, to actually meet the
25 obviousness standard, there's a lot more you have to do. You have to show
26 -- okay, if I'm pulling from one reference I have to show -- okay, I'm pulling

1 from Chapter 6 for this and Chapter 2 for this, it would have been obvious to
2 rely on the Biotherm implanted microchip within the Cochrane Farm.

3 You have to show why the ear tag isn't sufficient, why you'd be
4 motivated to make that change. That analysis is not in Ground 1 of the '515
5 Patent. So on that point, we think it's just flat out official. And because
6 Ground 1 fails, Grounds 2 and 3 in the '515 petition also fail. Because these
7 petitions do not circle back and fill in the gaps of why Claim 1 and 2 are
8 obvious based on a single reference.

9 They just add on to it. Also related -- but I do want to push
10 through to the next portion of our discussion is a concept that appears in
11 both patents. And again, I'm at a roadmap slide, our Slide 9 -- or Slide 10.
12 And that is our contention that it's not obvious to combine animal
13 temperature and milk information as recited in claims in both the '206 and
14 '515 Patent.

15 Slide 17 as the claim language, this appears in Claims 1 through 4
16 and 6 of the '206 Patent and Claim 4 of the '515 Patent. And what it requires
17 is an RFID sensor that collects sensed animal information and that's matched
18 or linked, matched in the '206 Patent, linked in the '515 Patent with animal
19 information specifically including milk production or days in milk.

20 Trevarthen does not describe or suggest linking these concepts
21 together as required by the claims. Instead, if we go to Slide 18, they pull
22 these concepts from different sections of Trevarthen. He's simply not
23 suggesting combining these. So this is from his Trevarthen's theoretical
24 framework. This is the table of contents, optional components, a portable
25 RFID reader, weight scales, feed control, feed troughs, milk meters is where
26 they pull milk production, milk and controller, GPS tracking, these are all

1 disparate concepts.

2 The temperature monitoring within RFID, that is where Trevarthen
3 discusses potential applications for what's frankly a prototype he discusses in
4 his background art section. These are not linked, no explicit linking or
5 suggestion to link concepts of milk production with sensed animal
6 information in which Petitioners say is the temperature.

7 I think -- actually, Trevarthen's own characterization of this both
8 theoretical framework is helpful. Trevarthen acknowledges that aspects of
9 this framework may be considered idealistic, at most should be considered
10 -- well, it doesn't say at most, he says should be considered a possible long-
11 term goal and importantly, it says basically if the technology permits it.

12 If RFID technology catches up to some of this, this would be neat
13 to do some of these things on your farm. It's not a Honda Accord. And I
14 would direct you to Trevarthen Exhibit 1005 at page 40 for some of the
15 caveats about what this theoretical framework is doing. And we also
16 -- moving to Slide 19 is this concept of let's take this implanted RFID
17 temperature sensor from the framework and combine it with milk.

18 There's good evidence in Trevarthen itself and from the experts
19 that that would not be an obvious step that a person of skill would do. The
20 only implanted temperature sensor that Trevarthen discloses -- or describes
21 is this -- it's a prototype, really, Biotherm RFID microchip by a company
22 called Digital Angel. It's acknowledged in Trevarthen as not yet being
23 extended to the livestock industry.

24 There's no price -- it's not for sale. It's not obtainable. And it's got
25 problems as a person of skill in the art would see which would prevent them
26 from having any reason to combine that with something like the Cochrane

1 farms, which as Trevarthen says works. That sensor -- because it's an
2 implanted microchip, it's injected right under the skin in a certain area
3 -- would have been likely to cause tissue damage, infection, discomfort,
4 that's Dr. Bowser.

5 Petitioners' expert Dr. Brown-Brandl admits that where you've
6 placed it specifically, this biothermal RFID would tend to migrate. And
7 importantly, the value of measuring the temperature is eliminated if the
8 sensor moves all around because different parts of the body are going to
9 have different temperatures. So within Trevarthen itself, there's no
10 disclosure of linking these aspects together. And there's -- we believe the
11 evidence shows that a person of skill in the art would not modify Cochrane
12 Farm, for example, to do so.

13 Mr. Buroker mentioned a couple of other references that they rely
14 on as background art. We have van den Berg which they say as it provides
15 an express teaching. I want to be clear here. First of all, van den Berg does
16 not measure animal temperature, it measures the temperature of milk. And
17 van den Berg does not expressly teach combining animal temperature with
18 milk production.

19 If you read van den Berg, what he's talking about is farmers had
20 used what's -- a concept called dead time, that is the time between hooking
21 up a cow to a milking system and when the milk begins to flow as an
22 indicator of perhaps illness with that animal. All van den Berg is saying is,
23 hey, a more reliable way to do that would be to use one or more of these
24 parameters, look at that instead, don't rely on just dead time.

25 It is not an express teaching to combine these concepts. And their
26 suggestion that van den Berg describes attaining a higher accuracy by

1 combining them, again, not what van den Berg says. Van den Berg says,
2 hey, here's a way to get higher accuracy in measuring temperature of milk
3 flows. He's not saying an illness detection like the Petitioners contend. I do
4 want to jump forward.

5 JUDGE WISZ: (INDISCERNIBLE - TECHNICAL
6 DIFFICULTY).

7 MR. MOFFETT: All right. I hear voices, I wasn't sure there's a
8 question.

9 JUDGE WISZ: I actually do have a question. Now, looking at
10 these overview slides --

11 MR. MOFFETT: Yes.

12 JUDGE WISZ: -- and I know you went over this earlier. But you
13 have listed there for the '515 Patent no anticipation or single reference
14 obviousness. Do you have the same arguments on the single reference
15 obviousness for the '206 Patent? I just noticed it's not listed there, so.

16 MR. MOFFETT: Yes, Your Honor. That's the concept of the
17 milking information and the health information or the temperature
18 information -- this is an example -- are not disclosed in the same discussion
19 and it's broader than that. It's this similar concept of you're using Cochrane's
20 ear tag plus theoretical framework plus background literature. So I don't
21 think we have it explicitly labeled that way, but that's absolutely
22 (INDISCERNIBLE).

23 JUDGE WISZ: I just wanted to clarify.

24 MR. MOFFETT: Claims 4 and 18 of the '206 we believe are very
25 important claims that are worth discussing because it is an important aspect
26 of the invention that's described in the specification and because the petition

1 really fails to address what recite in these claims. Both Claims 4 and 18
2 recite that stored animal information would comprise health information
3 that's distinct from the sensed animal information -- if you read the claim
4 which is above that -- and that the logical value that you obtain will indicate
5 an occurrence of illness. And that's in both Claims 4 and 18. And Dr.
6 Bowser provided some explanation for how this is described within the
7 specification.

8 And essentially, it's -- if I jump forward to Slide 25, essentially, it's
9 the concept of taking both of these sources of information and putting them
10 into a logical expression and obtaining a diagnosis -- and there's examples of
11 that in the specification -- that is an occurrence of illness. Trevarthen does
12 not disclose or suggest a system that identifies a diagnosis or occurrence of
13 illness.

14 Petitioners rely only on Trevarthen's alerts. There's a concept of an
15 alert. Now, Trevarthen's explicit, the alert is merely a notification through a
16 beeper or something to the farmer that there's a fluctuation in temperature. It
17 is not an occurrence of illness. Trevarthen itself tells us that, hey,
18 fluctuations in temperature, this is at 121 and 122, can be caused by the
19 animal being in heat or other reasons beyond illness.

20 Dr. Bowser says there's lots of things that can cause fluctuation,
21 animal estrus, a change in its feed, different activity. In other words, all
22 Trevarthen system would do is flag a fluctuation. It does not solve a logical
23 expression as Claims 4 and 18 require to identify an occurrence -- to indicate
24 an occurrence of illness. That's the first problem with their argument as to
25 Claims 4 and 18. But the second defect is they don't actually identify health
26 information as that term is used in the claim, relevant health information.

1 On Slide 26, this is the entirety of Petitioner's argument as to
2 where health information can be found in Trevarthen. They identify solely
3 treatments as the relevant health information. Now, I heard Mr. Buroker say
4 today, well, hey, we also talked about temperature and milk production.
5 That's not what this says. It says -- keep in mind 4A right above this
6 identified temperature as physiological data from the animal as a different
7 source of information that's sensed animal information, that's 4A. 4B says,
8 hey, in addition to that, Trevarthen has treatments.

9 These treatments are the health information. That's what
10 Petitioner's argument is. If there's any question about whether they had
11 relied on milk production as the health information of Claim 4, look at their
12 argument in Claim 18, they only refer to treatments. So treatments is the
13 health information. But treatments is not relevant health information that
14 could be used in the expression per the claims.

15 The specification itself distinguishes treatments as -- it's an output
16 just like an occurrence of illness. It's not an input to determining illness.
17 More to the point, going to Slide 28, is how Trevarthen -- what Trevarthen's
18 treatment information is, and that with Trevarthen is a cow's history, historic
19 treatments, historical log of here are the past treatments probably kept for
20 regulatory purposes.

21 This information is not suitable for entry into a logical expression
22 that will tell you anything about the current state of the cow, let alone an
23 occurrence of illness. In fact, going to Slide 29, Dr. Brown-Brandl in her
24 deposition acknowledged she's not aware of any livestock management
25 software that would use information from a treatment log to indicate illness.

26 So Petitioners have failed to satisfy that. There's some discussion

1 of a new argument of milk production is the relevant health information,
2 that's Slide 30. A, this is a brand new argument made for the first time in
3 reply, the Petitioner shouldn't get the benefit of that. But in any event, it
4 suffers from the same problem with temperature with Trevarthen.

5 Trevarthen does not provide an indication of illness using milk
6 production. It's simply, again, fluctuations. So if there's a mechanical issue
7 with your equipment, if there are environmental conditions, if there's feed
8 intake issues that might cause milk fluctuation, that doesn't do what the
9 claim requires indicate illness.

10 I'd like to move, if I may, to Slide 32. And this is a requirement in
11 all claims of the '206 Patent, that is does Trevarthen disclose program
12 instructions for the claim processes? And Trevarthen does not -- or at a
13 minimum, Petitioners have absolutely failed to meet their burden to show
14 that Trevarthen discloses and shows program instructions executable to do
15 the processes in Claim 1 of the '206.

16 That's retrieving animal information -- retrieving sensed animal
17 information, matching, entering, and solving. Instead, page 33, we have the
18 entirety of Petitioner's discussion of this element, program instructions. And
19 all they identify is Trevarthen's, quote, "herd management software."
20 Actually, software is in quotes at page 100 of Trevarthen.

21 For this to satisfy their burden, to show that it's obvious,
22 Petitioners have to show that that software, (INDISCERNIBLE), the one
23 they relied on, is the software that contains program instructions for
24 executing all of the processes in the claim, retrieving, batching, entering,
25 solving. I think it's really well illustrated by the fact that Petitioners rely on
26 this Bio-Thermo RFID prototype system for the sensed animal information.

1 They have not shown any program instructions that retrieve
2 information from that. That system only used a handheld reader. We don't
3 know if that handheld reader exported or if the software that Trevarthen
4 described would retrieve it or if it would be manually entered, which
5 Trevarthen says is an option. I think critically, as we know from Trevarthen
6 that that prototype device had not been used for livestock at all yet. So why
7 would the Trevarthen's herd management software even be capable of
8 talking to that implanted RFID prototype? They haven't shown it's there.
9 They haven't had any discussion.

10 And in Slide 34, the Federal Circuit told us this is their burden. In
11 the Garmin case, they pointed to a single microprocessor for doing various
12 processes. And the Federal Circuit said, well, you haven't shown us that that
13 microprocessor does those processes. The shortcut's not appropriate in this,
14 and they just haven't met their burdens. Do you want to give Mr. Landers
15 some time? But I do want to - I mean, Mr. Landers touched on briefly one
16 more dependent set of claims. Actually, it's in various independent claims
17 too. I apologize.

18 If we Jump to Slide 36, Claims 17 through 20 of the '206 Patent
19 and 3 through 4 of the '515 require that the RFID device itself provide date-
20 time information because it's retrieved date-time information from said
21 RFID device. There's really no dispute, to go to Slide 37, that Trevarthen
22 describes fixed readers that read and that record the time and date.

23 It teaches the RFID reader as providing the date-time information,
24 not the implanted RFID device. Now, we've heard from Mr. Buroker about
25 Brune and the panel credited Brune in the institution decision. But what you
26 didn't have at the time in the institution decision that we think is important is

1 that is the testimony from their expert, Dr. Brown-Brandl, who
2 acknowledged that in Trevarthen system, there's that having a centralized
3 point.

4 I get the milk parlors where Trevarthen says the reading is done.
5 It's advantageous to have the date-time provided by that reader as opposed to
6 the device. And in fact, she says it would be ideal. So with that teaching,
7 there's no reason to modify Trevarthen to change the operation. They say it's
8 obvious to try, but obviousness to try still requires some design need or
9 market pressure and they haven't shown us there.

10 I'll now hand it to Mr. Landers unless there's any more Trevarthen
11 related questions.

12 JUDGE WISZ: Thank you.

13 MR. LANDERS: Thank you, Mr. Moffett. Thank you, Your
14 Honors. As Mr. Moffett explained, I'm here to discuss the Laitinen-based
15 grounds for both the '515 and the '206 Patents. And the first thing I'll
16 address is one of the deficiencies in Laitinen with respect to the implanted in
17 an animal claim limitation that appears in almost all the claims in the case.

18 Here on Slide 42, we've got a listing of the claims where this is
19 relevant. In the '515 Patent, as you can see here, it's got the RFID device
20 implanted in an animal that's going to be in all the challenged claims. And
21 you're going to have a similar recitation of claim element in Claims 2, 3, 6,
22 and 17 through 20 of the '206 Patent.

23 And on Slide 43, just a quick reminder for the Board, I think Mr.
24 Buroker referred to this, but the Board has addressed the meaning of this
25 term in his institution decision and found that implanted in an animal means
26 implanted within the animal rather than on the animal. And there hasn't

1 been a dispute about this term since, Petitioners have not raised this issue.

2 But I do ask the Board to adopt this construction for the final
3 written decision. And so why this matters is the particular systems and
4 combinations that Petitioners rely on in their briefing, so they cite two things
5 in Laitinen that is the alleged logical expressions in the claims. The first one
6 is Laitinen's heat detection system and importantly, that one relies on
7 temperature and movement.

8 And then there's a medical treatment function, which I think has
9 also been referred to in the briefing as an inverse function. That one uses
10 temperature as the sense to animal information. So therefore, Petitioners
11 were required to identify an RFID device in Laitinen -- sorry, I didn't
12 mention this, we're on Slide 45. So Petitioners were required to identify an
13 RFID device that's implanted in an animal that also senses temperature and
14 movement in order for their combinations to work.

15 So we'll move to Slide 46. This is the language from Laitinen
16 discussing the capabilities of its two types of RFID devices. Now, what's
17 important here is that only the external device is disclosed or taught in
18 Laitinen as providing temperature and movement measurements. The
19 internal device that Petitioners rely on only measures heart rate through an
20 EKG, muscular tension or fatigue through an EMG, and it has optical
21 sensors for measuring oxygen saturation.

22 There's nothing in here suggesting that the sensors in the external
23 device would work in the internal device. Now, Figure 2 is helpful here. So
24 at the top, in blue, we have the external RFID device. This is Slide 47 now.
25 We've got the external RFID device up at the top. It explicitly measures
26 temperature, movement, and location. And then down at the bottom, we've

1 got in green the internal RFID device. Again, there's no suggestion that that
2 internal device measures temperature, movement, or location.

3 Now, I do want to address some of the arguments Mr. Buroker
4 presented. It sounds like he's relying on the sensor unit itself as the alleged
5 RFID device. The sensor unit is specifically the sensors in these figures. So
6 in 225, at the top one, that's a sensor unit, down at the bottom, it's 235.
7 Now, the sensor units -- there's two reasons this argument doesn't work,
8 number one, the sensor unit itself is not an RFID device, at least in the
9 manner claimed.

10 The claimed RFID device, in addition to providing sensed animal
11 information, also has to provide animal identification information. And if
12 you read Laitinen at -- that's Exhibit 1006 at column 3, 44 through 50, it's
13 actually describing a different component that's providing that information,
14 not the sensor. And that's typically how RFID devices work. And one of
15 the examples they give is the microcontroller might provide that
16 information, but they never suggest that the sensors provide the animal's
17 identification information.

18 And the second reason that doesn't work is if you actually look at
19 the language that Mr. Buroker cited on, I believe it was Slide 50, and that's
20 where he's describing general concepts. Before he gets into these specific
21 examples, he's talking about that there's sensor units that can measure
22 temperature and other things. And then also, he says sensor units can also
23 be an implant. Well, that's what this figure is explaining. He provides
24 background and then he provides the details. And in the details, Laitinen is
25 explicit, his external control device measures temperature, movement,
26 location, but the internal device does not.

1 So unless you have any questions on that particular argument, I'm
2 going to move on to a second deficiency here on the overview Slide 48. It's
3 the arguments related to the milk information element that is missing from
4 Laitinen. So moving to Slide 49, that's going to be '515, all challenged
5 claims in '206, Claim 1, 2, 4, and 6. They include this amount of milk
6 production or number of days in milk information.

7 And as Mr. Moffett mentioned earlier, this information gets
8 combined with the sensed animal information in the logical expression. So
9 you've got two different types of animal information going on and we're
10 talking about the information that comes from the database, which is the
11 milk production information. And that's missing from the two combinations
12 I mentioned earlier.

13 So one of the components of those two combinations is that sensed
14 animal information we were just discussing and that the other requirement is
15 to have milk production, which they're both missing. And that's why
16 Petitioners bring in the Liao reference. And I'm on Slide 50, by the way.
17 They bring in the Liao reference to kind of attempt to connect Laitinen's heat
18 monitoring system and its medical treatment systems to include milk.

19 But their arguments don't work. Starting with the Liao reference
20 here on Slide 51. So their argument for Liao is that simply because Liao
21 uses peak yield in its system for an insemination decision, that's reason to
22 use it in a heat detection module, such as the one in Laitinen. It actually
23 doesn't make sense. If you look at the table here on Slide 51, what this is
24 showing -- and we've highlighted the three key inputs and outputs here -- in
25 Liao is that peak yield is the amount of milk produced by the cow.

26 And Liao explains that that's in liters and that's in the prior

1 lactation cycle. So they identify cows that for either low performers or high
2 performers in a prior lactation cycle by inputting that information into this
3 table. And then they provide whether the animal is in heat. And then based
4 on that, the farmer who's the user of this system will input whether or not
5 there's a decision to inseminate that animal based on those inputs.

6 And importantly, heat is simply one of the inputs. They're not
7 detecting heat here. They're pulling it in from somewhere else. And I think
8 just zooming in the two rows that I highlighted here on Slide 52, I've kind of
9 demonstrated the point a little better here. So if you look in pink, that's the
10 low-performing cow that only produced 20 liters of milk in its latest
11 lactation cycle at its peak.

12 And for that one, even though the animal was in heat, that's a yes
13 there in the middle, the farmer said, no, don't inseminate that animal. But
14 then on the high-performing cow -- and this is where it really highlights the
15 point here, for the higher producing cow that produced 55 liters, the animal
16 was not in heat. But he said, yes, inseminate.

17 Now, if Liao was interested in simply detecting when the cow was
18 in heat, this would have been -- this wouldn't make sense because then heat
19 would need to be yes in order for the cow to be inseminated. But that's not
20 what he's doing. And we asked Dr. Brown-Brandl about this at her
21 deposition. And she explained, yeah, that makes sense.

22 There's a reason to identify low and high-producing cows, to
23 identify the high performers. And if you have a low-producing cow that you
24 might plan on culling because we're in the dairy industry here, you're not
25 going to inseminate it. So that's consistent with what Liao is disclosing.
26 And that's a disconnect between what Liao is using its peak yield for and the

1 -- what the heat detection system in Laitinen is doing.

2 It's actually trying to determine right now is this cow in heat. So it
3 uses physiological parameters of the animal's present conditions, such as
4 temperature and movement, bringing peak yield into that wouldn't make
5 sense. It doesn't say anything about whether the cow is currently in heat.

6 Moving to Slide 53, I think Petitioners may have recognized some
7 of the deficiencies in their argument. Because in their reply, they've argued,
8 well, heat detection and insemination decisions are closely related subject
9 matter. So you'd combine those two references. That particular argument,
10 which is there's a blurb from a case here on Slide 53 has been addressed at
11 the Federal Circuit.

12 They've affirmed a PTAB decision, finding there was no
13 motivation to combine simply because the two references have the same
14 technical issues. That's not a motivation. The same case further explained,
15 you need something more. You need an actual reason for that particular
16 claim element to be input in the other reference, such as a deficiency in one
17 of the references. And that's just not here, they don't say anything about
18 Liao or Laitinen deficiencies with respect to the heat detection functions.

19 So now, let's move on to the Slide 54, which is that -- now, we're
20 on to the second system, that medical treatment function. And again, milk
21 production would not be useful here either, and you really have to look at
22 what Laitinen is disclosing. I don't think Petitioners really dug into how the
23 system works. But it's critical to understand in order to see why this milk
24 production wouldn't matter.

25 So as Dr. Bowser, he read Laitinen, he looked into it. The way the
26 medical treatment function works is it's actually looking at a cow's past

1 physiological conditions, such as temperature, which they rely on to
2 determine whether the medication provided to it had a desirable response
3 with respect to that particular physiological condition.

4 Just as a simple example, in the Laitinen system, if temperature
5 goes up and they say, okay, we want that temperature to go down, did that
6 medication make it go down? And then in the future, they can use that
7 information to say, hey, here's a medication you might want to rely on. And
8 the problem for Petitioner's argument with that is milk production doesn't
9 make sense in that kind of system.

10 Because as Dr. Bowser explained, milk production doesn't have a
11 reliable response to medication. It's not even something a veterinarian or a
12 farmer is going to look at. And this is unrebutted testimony. And then one
13 thing the experts did agree on is when the medication is being provided to
14 the animal, you take that animal out of production into a hospital pen so that
15 you can get the animal healthy.

16 The milk it's producing isn't being used for consumption. So
17 whether that medication is increasing or decreasing the amount of milk that's
18 being produced isn't really the relevant factor. The relevant factor is the cow
19 being healthy. Did we get its temperature down, things like that. Injecting
20 milk production into that, as Dr. Bowser explained, is just going to introduce
21 noise into the system and there's simply no reason to include it.

22 Moving to Slide 55. Again, sort of recognizing some of the
23 deficiencies with Laitinen specific logical expressions, you know, that they
24 try to rely on. They say, well, don't look at the actual -- don't look at what
25 Laitinen is doing, don't look at its heat detection system where it's a medical
26 function. You could create a new expression that just happens to have, you

1 know, the two required claim elements.

2 Not only is that hindsight, but that's an improper argument under
3 311(b) because that new expression doesn't exist. They don't identify it.
4 They don't put the puzzle pieces together to explain where the components
5 come from the prior art. They just say they come up with a new expression.
6 And we think that's because there's issues with Laitinen's actually -- actual
7 disclosed expressions.

8 So moving to Slide 56, back to that overview slide. As Mr.
9 Moffett mentioned, these are important claims. And similar to Trevvarthen,
10 Laitinen suffers from some similar issues here, the arguments with respect to
11 Laitinen. Moving to Slide 57, this is the entirety of Petitioner's argument
12 with respect to how they identify health information and then what they sort
13 of plug into the logical expression to indicate -- to allegedly indicate an
14 occurrence of illness.

15 So in element 4B over on the left side of Slide 57, they say that
16 Laitinen stores this alleged health information. And then they point to some
17 unspecified data in Laitinen that they don't describe and Laitinen doesn't
18 describe what they're actually doing with this data. And that's why when
19 you get over to element 4C over on the right side of Slide 57, they don't even
20 talk about it again.

21 They just say you enter temperature and milk production
22 information that -- for indicating an occurrence of an illness. After we
23 pointed that out in the response and they pivoted, here on Slide 58, the reply
24 no longer argues that that unspecified data from Laitinen is the alleged
25 health information. They argue, well, temperature is health information.
26 And that's just conflating claim elements.

1 Claim 1 is very clear in how it's set up. So starting at the top of
2 Slide 58 over on the left, you've got the retrieving sensed animal information
3 from said RFID device limitation. And that's the information generated by a
4 sensor. And then in the next step, you match the sensed information to the
5 information that's in the database, such as milk production. You're no longer
6 in the realm of sensed information. This is other information. And then you
7 enter -- in the last step here, you enter both the sensed information and the
8 database information into a logical expression, okay?

9 So moving to Claim 4, it identifies exactly what kind of data that
10 health information is. It's the one that goes into the database. So you enter
11 -- you do enter that information into the logical expression because it's the
12 database information from that step where both the sensed animal
13 information and the database information gets input.

14 But the important thing to point out is it's incorrect to rely on
15 temperature as the health information because that's conflating claim terms.
16 Claim 1 specifies sensitive information. It specifies database information,
17 such as milk production. Then it gets to the health information, which is
18 also identified as the said database information, which here is health
19 information.

20 Now moving to Slide 59 is the overview slide, again, I'm just
21 going to go over a few additional limitations. In the interest of time, I'll try
22 to be as brief as I can. But starting with Slide 60, this has come up with
23 respect to Trevarthen, but same issue here with Laitinen and these program
24 instructions. I'll move to Slide 61. Basically, this is a summary of what they
25 argued.

26 It's very similar to what they did with Trevarthen. They point to

1 components of Laitinen that could be a program instruction or could be a
2 processor, such as a computer or software. But they don't take that next step
3 required under Garmin, which is to say this computer performs this claim
4 step. They just identify the claim processes.

5 They don't link it back to the program instructions that they
6 identified. And this is very similar to what happened in Garmin. So even if
7 the Board, you know, said, well, they included the -- all the processes in
8 Laitinen. Well, that wouldn't meet the claim because that's not enough, you
9 have to tie it to the claimed instruction. And that's what they found in
10 -- from Garmin, you know. The Board agreed that the process is disclosed
11 in Richardson meet the claim, but there is no disclosure that that particular
12 processor executed the particular processes. You have to link them together.

13 So moving to Slide 62. This argument is specific to '515, Claim 1.
14 Over on the left side of Slide 62 we've got the element retrieving an amount
15 of animal identification information from said RFID device implanted in an
16 animal. So they point to a few things here, this is the entire argument for
17 this element. Petitioners have pointed to, you know, a system of
18 identification information, a surveillance device for personalized identifier,
19 and a pico level device that functions like a conventional identification tool.
20 But they never go the next step and say, and that surveillance system is
21 implanted in an animal or functioning like a conventional identification tool
22 involves supplying animal identification information.

23 And if you'll note on this, this one we've underlined here on Slide
24 62, they put an animal in brackets. But over on the right, it's explicitly an
25 external device. Laitinen explains a pico level device is attached
26 permanently to, for example, the animal's ear, which is external, not

1 implanted. And it functions like a conventional identification tool. So they
2 haven't explained how -- well, how does that information come from an
3 implanted device? Where is this disclosure in Laitinen?

4 Unless Your Honors have any questions about the Laitinen
5 grounds, I'll move on to the motion to exclude. Okay. And that's going to
6 be -- we're here on Slide 63 is the overview slide. So we'll move over to
7 Slide 64, which is the -- this is referring to Exhibits 1040 and 1041, which
8 Patent Owner has argued in its brief should be excluded under Federal Rule
9 of Evidence 403.

10 But I think Petitioner said that we're relying on Federal 106. But
11 just to be clear, what we're saying is Federal Rule of Evidence 106,
12 recognizes that incomplete exhibits like these are prejudicial, they're kind of
13 inherently prejudicial. And so just to take a step back, Exhibit 1040 and
14 1041, they're math textbooks.

15 And for each of them, Petitioners only provided a single page.
16 And these are 200, 100 plus page textbooks. All we've got is a single page,
17 we don't even have the entire chapter. And then when, you know, we
18 deposed Dr. Brown-Brandl on it, she agreed, yeah, these are textbooks. So
19 they're trying to use these documents to show that, you know, adding a
20 bunch of variables to a model is better.

21 But she acknowledged, yeah, there's also downsides to adding
22 variables to a model and the textbook would include this. But we don't
23 know, we don't have the information. So we objected to them. Petitioners
24 didn't provide any supplemental information and that's -- for that reason, we
25 think they should be excluded.

26 Exhibit 1044, this exhibit is hearsay. And if you look at this, on

1 Slide 65, this is how they use the exhibit. They basically say Google
2 explains, sometimes Google shows dates next to listings in a search result,
3 and that's merely a best estimate of when a page is published or significantly
4 updated. That's offered for the truth of the matter asserted.

5 They don't deny that. Instead, they argue that the residual hearsay
6 exception applies, but it doesn't. The residual hearsay exception is a -- is for
7 exceptional circumstances and that doesn't apply here. For example, one of
8 the things you need to show is that a reasonable efforts could not have
9 produced more probative evidence. They don't even attempt to do that.
10 They simply said, well, the residual hearsay exception applies. We weren't
11 going to subpoena Google. But they don't offer any other steps that they
12 could have taken.

13 Moving on to Slide 66. Making matters worse, that the hearsay
14 exhibit, it wasn't even authenticated. So as the Homestore case explains,
15 printouts from a website do not bear the indicia of reliability. So in other
16 words, the web page that they provided, which is Exhibit 1044, isn't self-
17 authenticating. But then even the evidence that they pointed to, that's
18 insufficient.

19 So if you look at Homestore, they provided even more evidence
20 and it was insufficient. They gave the -- they cited the URL address, they
21 cited the date stamp, and they also provided a declaration. So Petitioners
22 didn't even do all that. They cited the URL and the date it was captured,
23 there's no declaration, yes, it's lacking all the indicia of authentication. And
24 for that reason, in addition to the hearsay reason, we think Exhibit 1044
25 should be excluded.

26 I'll reserve the rest of the time for sur-reply unless Your Honors

1 have any questions.

2 JUDGE FENICK: All right. Mr. Landers --

3 MR. LANDERS: Yes.

4 JUDGE FENICK: -- can we go back to the arguments at Slides 58

5 -- I guess, 57, 58, the arguments about Claims 4 and 8.

6 MR. LANDERS: Yes, Your Honor. I'm on Slide 57 for Judge
7 Wisz here.

8 JUDGE FENICK: Okay. Thank you. My question is, are you
9 saying -- I think you're saying that temperature is not -- can't be health
10 -- temperature can't be health information. Then later on, I think we
11 discussed whether -- the question of whether milk production could be the
12 health information, I guess this was earlier slides. Are those related
13 arguments? Are these separate arguments? And I think that part of what
14 was relied on is an article of de Mol. And I was wondering if you can
15 discuss why de Mol doesn't show that milk production could be used as an
16 indication of health.

17 MR. LANDERS: Right. So I'll try to address your first question
18 first, which was about the relationship between the milk production
19 argument, that would have come up in Mr. Moffett's presentation, but it's
20 somewhat related. The idea is that milk production, it -- or milk production
21 isn't the health information because it's in Claim 1.

22 But this is a little bit different argument because this is about the
23 way the claim is structured. You have sensed animal information, which is
24 just separate and distinct from this next element that gets matched to that
25 sensed animal information. And that's information from a database, such as
26 milk production, such as health information. So the arguments are handled

1 differently because of the structure of the claims.

2 And your second question was about the de Mol reference, I
3 believe. So yeah, there's evidence in de Mol, in fact in his conclusion that
4 the model that he proposes generated too many false positives. So he
5 warned against using it for practical applications, which is what we're
6 claiming, you know, application of animal management system.

7 And we asked Dr. Brown-Brandl about that, you know. How does
8 that relate to whether a person of skill would use that sort of model in their
9 own systems? And she said a system that generates too many false positives
10 is going to be obsolete. That's the word she used. So again, it's just de Mol
11 is an example of, you know, he's tried this thing out, it didn't work. And it's
12 a reason not to use that information.

13 Right. Slide 21. I apologize, Your Honor, Mr. Moffett just pulled
14 up, Slide 21 has that excerpt from de Mol.

15 JUDGE FENICK: Okay. Thank you.

16 MR. LANDERS: Thank you.

17 MR. BUROKER: Thank you, Your Honors, I have a few points
18 here on rebuttal. And I'll try to go in the order in which Patent Owner
19 addressed issues, but I may bounce around. There were a lot of issues worth
20 responding to. First off, in talking about Trevarthen and whether it's a
21 printed publication, I thought I heard Patent Owner's counsel say that
22 Trevarthen, the theory and the petition, was only that it was available on the
23 -- by searching on the internet.

24 But as I read page 8 of, for example, the '206 petition, we
25 specifically say that the Internet Archive confirms the public accessibility of
26 the Trevarthen thesis on Research Online, and we give the dates. And that's

1 why we were citing to the download history. So this is a theory of public
2 availability that's not based on being able to locate the information on
3 Google.

4 It's independent confirmation that it is a printed publication and,
5 therefore, publicly accessible. And we specifically cite the Valve case to
6 support that idea in which the Federal Circuit found that the contents of web
7 pages being available through the Wayback Machine accurately and readily
8 determines the sources can be reasonably -- whose accuracy cannot be
9 reasonably determined, show that it's a printed publication.

10 The next issue is -- I think that there was a contention that the
11 Google Scholar search that we presented was not date limited. This is Slide
12 16, if you look in the left-hand column, it specifically was date limited. So
13 the Google Scholar search was limited to articles before 2009. And you can
14 see Trevarthen appeared on the fourth page very early in the search results.

15 So this demonstrates that Google Scholar, a person of skill in the
16 art looking for the article now and date limiting it to 2009 would find the
17 article. It equals their argument that, well, if you're searching now on
18 regular Google, you wouldn't find it through a date limited search. What
19 that evidence doesn't tell you is what would have happened in 2009 because
20 there was a lot less information indexed on Google.

21 And so we think that the best evidence, again, is this international
22 search report. As we all know, patent examiners don't spend endless hours
23 searching. And the fact that this patent examiner in Australia located
24 Trevarthen through this search technology, including the internet, and the
25 search term that's listed indicates that he or she readily found Trevarthen and
26 provided a URL to it so that it could be located by anybody else who found

1 the search report. And that idea is in the Valve case that we cited to in our
2 petitions.

3 Next issue I wanted to talk about is the single reference
4 anticipation regarding Trevarthen. We think it's pretty clear that the cases
5 do not require that we show that the reference has a specific mapping of
6 every different citation that we rely on. If that were the case, nothing would
7 be anticipated because patents are often like there's different sections of
8 patents that are used as prior, there's the background, there's the summary,
9 detailed description.

10 The case law does not require some very stringent requirement that
11 we go through and say, ah, the discussion in column 3 is tied to the
12 discussion in column 5, which is tied to the discussion in column 10. What
13 you need is to understand what a person of ordinary skill in the art looking at
14 the literature would have understood from it.

15 And our evidence is that a person of ordinary skill in the art
16 reading Trevarthen would have understood it to be a system that was being
17 described with improvements. And the improvements, yes, there was a
18 laundry list of improvements in the different subchapters of Chapter 6. But
19 then each of those were described as being features that could be added on.
20 That is a single system that should be anticipation and/or single reference
21 obviousness.

22 Now, I want to go talk now about Claims 4 and 18 because I think
23 there's some confusion or disagreement between the parties about how to
24 read Claim 4. And I'm looking at Claim 20 -- or Slide 28, excuse me. If you
25 look carefully at Slide 4 -- or excuse me, Claim 4 in Slide 28, this takes
26 Claim 1 and adds three requirements.

1 Claim 1, you have a logical expression that takes into account
2 sensed information and animal information and there is an output. In Claim
3 4, we're adding to this the requirement about the sensed information being
4 physiological, that's not really relevant to the issues here. But then it says
5 the animal information comprises health information.

6 And then it goes on to say that the logical value indicates an
7 occurrence of an illness. What do you need to prove for Claim 4? You need
8 to prove that some animal information in Claim 1 is used -- being used in the
9 logical expression. And for Claim 4, it requires that that logical expression
10 determine whether there's an illness.

11 This claim does not require that the health information be used in
12 making that determination, specifically does not mention using that health
13 information as being part of the equation that yields the determination of an
14 illness. In fact, how do we know that? Well, it's comprising language. So
15 in our petition, what we identified for Claim 4 -- and we've got it on the
16 screen here on Slide 28 -- in addition to storing temperature and milk
17 production information that are indicators of animal health, Trevvarthen
18 discloses treatments.

19 Their argument that we only identify treatment is completely
20 belied by this paragraph. It specifically says that milk production
21 information is an indicator of animal health. I don't know how the petition
22 could have been more clear. This is from -- language from the declaration
23 but there's similar language in the petition. In Claim 4, our argument would
24 be that the animal information that's used to determine an illness is milk
25 production information and the health information is milk production
26 information or treatments. That's how you read Claim 4, and that's how

1 Trevarthen meets Claim 4. Similar arguments are applied to the Laitinen
2 discussion on Claim 4.

3 Let me go to Slide 23. There was some discussion that Your
4 Honor just asked about with van den Berg. And van den Berg clearly
5 explains that for indication of heat or illness, temperature of milk flow and
6 milk yield would be important to look at. So there is a teaching in van den
7 Berg to use milk yield for illness detection and relying on that in our
8 combination.

9 There was discussion about the Brune reference and what our
10 expert testified to in her deposition. I think it's important -- let me set the
11 framework here. Let me go to Slide 34. So remember, Brune is brought in
12 for at least the '206 for Claims 17 to 20. And it's brought in for different
13 dependent claims for the '515 Patent.

14 And what Brune has brought in is the idea of using the date-time
15 information with the RFID device. And they asked our expert in deposition,
16 well, are there benefits of having the date-time information identified from
17 an external device? And she said, yes, there are. But then she also -- in her
18 reply declaration because Patent Owner didn't ask the question, well, are
19 there benefits to using an RFID device inside the animal that provides date-
20 time information?

21 She explained in more detail that there are benefits to that system
22 as well. So while they quote her as saying external device use of date-time
23 information is, quote, "ideal," she also indicates that there's a significant
24 benefit of having the date-time information being provided by the RFID
25 device itself and provided lots of detail about why that would be
26 advantageous. So it is not the end of the story. It would have been obvious

1 to add the Brune date-time RFID device system into Trevarthen as we
2 explained in the petition and detailed more in our reply.

3 Now on the Laitinen grounds -- I need to go to Slide 50. There's
4 an argument about what Laitinen is actually disclosing. Laitinen specifically
5 says in column 3 that the sensor unit can detect body temperature. But then
6 it goes on to say that the sensor unit can also be an implant inside the animal
7 and later in that same clause said that it can use RFID technology, RFIT or
8 Radio Frequency Identification Technology. This is a teaching to a person
9 of skill in the art to use an internal temperature sensor for -- in the Laitinen
10 system.

11 Let me go to Slide 43. There's a lot of discussion about whether it
12 would have been obvious to modify Laitinen system in view of Liao. And to
13 put it more clearly at a higher level, there's lots of literature and evidence in
14 this record from van den Berg, from de Mol, and from Liao that there's a
15 benefit to detecting milk production information for determining whether an
16 animal is ill or whether they are in heat and ready for insemination.

17 And that's what we are arguing at the highest level as to why a
18 person of skill in the art would have modified the Laitinen system to use
19 milk production to make determinations about illness and also to make
20 determinations about whether to inseminate the animal. Heat is a factor in
21 whether to make an insemination decision. It's not the only factor, but it is a
22 factor.

23 So we believe it would have been obvious to use temperature and
24 milk production to make heat determinations and thus, insemination
25 decisions from them. Program instructions, the Garmin case does not
26 require that we show that the word programs instructions are in the prior art.

1 It does not require that there be a detailed description of which steps are
2 performed by which specific instructions.

3 What it does require and what we presented in the petition
4 materials is an explanation that there is our program instructions, there is a
5 computer, there's a main memory, and we identify as we go through element
6 by element where the steps are described as being performed by a software
7 system. That's all that's required by the Garmin case, and that's what we
8 presented in the petition for both Trevvarthen and for the Laitinen grounds.

9 Now finally, on the motions to exclude 1040 and 1041 are excerpts
10 but Patent Owner could have -- if they thought there was anything important
11 about the other pages of those documents, use those pages in cross-
12 examination of our expert. There's no suggestion that there's anything that
13 would have been helpful to them. There's no harm in -- they don't say that
14 the pages that we used are inaccurate.

15 They don't say that they are wrong. They just say they shouldn't be
16 included because they are only part of the entire book. Well, it's not typical
17 that you would - in an IPR proceeding always include the entire book.
18 Instead, you include the relevant portions, and that's what we did. And the
19 Board can look at them for the -- for what they're worth.

20 We think that they're useful information. There's no indication that
21 they're not authentic, that they aren't what they say they are. There's no
22 indication that they are wrong. And the same argument applies for 1044,
23 there's no indication that this indicate that Google's website would be
24 misleading to the public. Google is trying to give information about how its
25 site works to its public. There's no indication that there's anything wrong so
26 that it's not authentic. And to the extent that it's hearsay, you can take it for

1 what it's worth. The courts are allowed to rely on hearsay to the extent they
2 are relevant to the issues.

3 So with that, Your Honor, unless you have any other questions, I
4 will yield my remaining time. Hearing none. Thank you, Your Honors.

5 MR. MOFFETT: Thank you, Your Honors. Just for the record,
6 it's Daniel Moffett again. I will endeavor to address most of what Mr.
7 Buroker went over in order. And at first, he started with the discussion of
8 Trevarthen's status as a printed publication. And what I heard is a dispute as
9 to how Google Scholar was used by Petitioners in the reply.

10 First of all, in the petition itself, Google Scholar was -- there was
11 no search conducted. In the reply, Mr. Buroker suggested that there was a
12 date range limiting tool for Google Scholar. But I think there's some
13 disconnect even on his end. What I'm -- what we show in Slide 8 is actually
14 a quote from Petitioner's own reply confirming, it is not possible to recreate
15 what a search of Google Scholar would have revealed back in 2009.

16 And I refer you again to the preliminary reply where Petitioners
17 themselves entirely made sense for them to argue this, I believe, but they've
18 since changed course as said a search of Google Scholar as of today would
19 be irrelevant. As to what the dates there, I believe those are simply the
20 metadata in the date range and in the screenshot Mr. Buroker provided. I
21 believe that's the case.

22 Well, but again, this was a new argument, a new approach in the
23 reply and I'm taking them at their word, it is not possible. Addressing
24 Claims 4 and 18, we'll go to our Slide 26. Again, we're on Patent Owner
25 Slide 26. This is Claims 4 and 18 of the '206 Patent which require
26 identifying an occurrence of illness. Mr. Buroker showed you what I gather

1 was Dr. Brown-Brandl's petition when he referred you to -- or our
2 declaration when he referred you to his Slide 4.

3 That's not in the petition. That slide, maybe she suggested that
4 temperature and milk production information are health information, but
5 that's not what the petition says. The quote he referred you to was in Brown-
6 Bradl's declaration. Of course, incorporated by reference isn't permitted and
7 it's -- we are responding to the arguments that the Petitioners made as the
8 Petitioner made them.

9 And as I have on screen, this is the entirety of their identification
10 of what health information is. And I'll go to the claim -- I think it's back to
11 -- one more -- and addressing his other point with respect to Claim 4, Your
12 Honors, he addressed his position that the claim does not require health
13 information to be put into the equation to identify an occurrence of
14 information illness, perhaps we can dispute that.

15 But I would say it does not actually matter with respect to where
16 they failed. It still has to -- the stored animal information still has to
17 comprise health information, which is distinct from the sensed animal
18 information in the same claim, which is what Petitioners say is temperature.
19 Those are distinct. However, you use the health information isn't necessarily
20 the point.

21 And again, we dispute that. But the point is what they've identified
22 as treatments as health information and that isn't relevant health information
23 that would be used in the system. There's no motivation to use it as again,
24 Trevarthen used the treatment discussion as just a simple log that would be
25 used in the context of perhaps regulatory reasons.

26 Again, our expert disputes. We do say health information is

1 incorporated into the equation, but that doesn't fall -- that doesn't eliminate
2 the argument. Finally, it still needs to generate an occurrence of illness.
3 And I heard Mr. Buroker say nothing about the fact that merely identifying
4 fluctuations in temperature or milk production is the same as an occurrence
5 of illness. It's not. Both experts say a lot of things can cause that.

6 Regarding just briefly Ground 2, '206 with respect to the RFID
7 reader versus the device providing date-time information, I just go back to it
8 was, again, ideal for their expert. Laitinen, Mr. Buroker's Slide 50, said,
9 hey, look this tells us that teaches you that a sensor can be implanted. That
10 is all that reference said that that quote said that a sensor can be implanted.

11 What Laitinen tells us if you read it in its entirety as a person of
12 skill in the art will, that's not true for every sensor. The sensors that take
13 temperature and the sensors that measure movement, those are external
14 sensors. Let me see, perhaps I'm over it. If I could have 30 more seconds or
15 -- to address the remainder. If I -- you could go to Slide 52, Mr. Landers.

16 Mr. Buroker said, hey, whatever you -- how you interpret Liao,
17 heat is a factor in making insemination decisions. I would say that Slide 52
18 says otherwise; heat yes, no insemination; heat no, yes insemination.
19 Nothing in here indicates that heat's a factor in assessing insemination
20 decisions, in fact, directly contrary responses to that question lead to
21 different results.

22 And finally, regarding the motion to exclude, just really quickly,
23 we objected to these single pages as exhibits, single page of the chapter we
24 objected. The 403 objection is admittedly very unusual. When the
25 factfinder is a panel of judges such as yourselves, you can usually decide
26 whether you're prejudice or not. But in this case, you are prejudiced. You

1 do not have access as the factfinders to the full exhibit. You have one page.
2 We objected. Petitioners elected not to take advantage of the opportunity to
3 provide a more fulsome complete exhibit and they should be held to that.

4 And finally, the Google blog is hearsay by definition. Their expert
5 didn't rely on it. It doesn't fall in any exception. So with that, Your Honors,
6 I appreciate, especially the little extra time. Unless there are other questions,
7 we appreciate your time. Thank you, Your Honors.

8 JUDGE WISZ: All right. Thank you all for appearing today and
9 answering our questions. The case is now submitted to the panel for
10 determination and preparation of the final written decisions. We're
11 adjourned.

12 (Whereupon, the above-entitled matter went off the record at 3:03
13 p.m.)

IPR2024-00875 (Patent 9,844,206 B2)

IPR2024-00885 (Patent 8,823,515 B2)

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