

1 DR. WEISS: Okay. So you would not want to  
2 follow them. Would anyone want to continue the  
3 present study with the currently implanted IMT  
4 patients to seven years? Dr. Ferris.

5 DR. FERRIS: Well, I have a question at  
6 least, and that is there has been discussion of this  
7 concern about a disaster, and if you do a five year  
8 follow-up study, you'll have zero information on  
9 long-term follow-up, and I'm fully aware of burden on  
10 the sponsor, and I'm very supporting of what Oliver  
11 said. I would like a little bit of information, but  
12 those 100 patients or so that they're still  
13 following, if they could follow them for a few more  
14 years, to have some sort of sense that there isn't  
15 this lurking disaster, I would think that that would  
16 be reasonable.

17 Now, you could say, well, if there are  
18 these disasters, they're supported to report them  
19 anyway but, you know, the reporting of SAEs, as you  
20 know, is not too good after the study's over. So  
21 it's at least a concern that I'd like to bring up  
22 because it's a concern of mine. I have no way to  
23 know whether -- there was a pretty big cluster of  
24 edema patients at 30 months, and if all of a sudden  
25 there were other big clusters of patients, I don't

1 think it would change the way I feel about the device  
2 other than what I would tell patients.

3 DR. WEISS: Dr. Schein. Yes.

4 DR. BONHOMME: I'd like to make two points  
5 of clarification. The first is that in considering  
6 what the postapproval studies might or might not be,  
7 we would ask that you consider the questions that you  
8 would want the study to answer and perhaps be guided  
9 by that, and the other point relates to the public  
10 health concern. I know we weigh the issues of burden  
11 and don't want to be burdensome, but you also need to  
12 consider very importantly the public health concerns.  
13 Thank you.

14 DR. WEISS: Dr. Schein.

15 DR. SCHEIN: So I think the question to  
16 address her question is an estimate in a real live  
17 population of the rate of clinically significant  
18 adverse events. And to address Rick's question,  
19 which I think is worthwhile, is it would make sense  
20 then to follow to seven or eight or beyond, but only  
21 for those major events, not for the full protocol.

22 DR. FERRIS: I've seen enough endothelial  
23 cell counts.

24 DR. WEISS: So I'm hearing that we would  
25 want a prospective study to be looking at specific

1 issues such as corneal transplant, explantability.  
2 Would we include specular microscopy in that  
3 prospective or we would not?

4 DR. SUNNESS: What about corneal edema?

5 DR. WEISS: Corneal edema would definitely  
6 be an endpoint. Dr. Ferris.

7 DR. FERRIS: Clinically important outcomes  
8 is what we're --

9 DR. WEISS: So clinically important  
10 outcomes when this is released to the broad surgical  
11 and the broad patient population at hand, but in  
12 addition, and if anyone does not agree with this,  
13 please let me know, expand this out to seven or more  
14 years. Is there an indication in terms of how many  
15 years we would want this extended out and we would  
16 have clinically significant events? Would we want  
17 the specular microscopy as well? Dr. Bandeen-Roche.

18 DR. BANDEEN-ROCHE: I mean if a parallel  
19 study is going to be going on, something like five  
20 years anyway, and we're collecting clinically  
21 significant events, I would suggest rather than 7,  
22 why not 5 more, I'm sorry, a total of 10, 5 more  
23 years for the original cohort in terms of their  
24 clinically significant events as well?

25 DR. WEISS: Dr. Eydelman, how -- what's the

1 typical length of time that -- beyond which you'd say  
2 it's not least burdensome?

3 DR. EYDELMAN: I'll defer to my  
4 epidemiology friends.

5 DR. BONHOMME: Again, the prevailing guide  
6 here is the public health concerns. So if you have  
7 an endpoint that you're concerned about that occurs  
8 at the second year, then you might have a two year  
9 study or a three year study. If you have an endpoint  
10 that you're concerned about that might occur in 5 or  
11 10 years, that would guide the duration of the study.

12 DR. FERRIS: So that's what I was going --  
13 I think there is a public health point here, and that  
14 the average life expectancy of somebody who's 75 or  
15 80, if you get to 80, you have about a 10 year life  
16 expectancy. If you get to 75, you actually have  
17 about a 10 years life expectancy. They may be bumped  
18 up a little bit now, but the 10 year is the average  
19 life expectancy of these people, and I think the  
20 burden is not so big if you're just focusing on these  
21 clinically important outcomes that at least I would  
22 like to say, I'd like it simple, but I'd like them  
23 followed for the 10-year period while this other  
24 study's ongoing.

25 DR. EYDELMAN: Yes, I was just going to add

1 to that that one needs to consider also how many  
2 patients are alive in this cohort and what is the  
3 life expectancy of those patients that are still  
4 remaining. That may be also something that you need  
5 to consider as you design or help us design this  
6 study.

7 DR. WEISS: Do you need more specifics from  
8 the Panel as far as -- you sort of get the sentiment  
9 in terms of the things that we're looking for.  
10 Certainly corneal edema and then operative  
11 complications from perhaps a less experienced  
12 surgical group. Is there anything else you need from  
13 the Panel in terms of more specifics on this or is  
14 this --

15 UNIDENTIFIED SPEAKER: There's a D.

16 DR. WEISS: No, no.

17 DR. EYDELMAN: This is the first one we're  
18 talking about.

19 DR. FERRIS: So the one that nobody's  
20 mentioned is retinal detachment. I mean if glaucoma  
21 is going to come up, I've got to say retinal  
22 detachment. It's a miracle that none of these 200  
23 patients have had a retinal detachment, but that  
24 would surely be one of the serious complications that  
25 you would want to follow.

1 DR. WEISS: Dr. Higginbotham.

2 DR. HIGGINBOTHAM: Well, I guess I just  
3 need a point of clarification. So are we suggesting  
4 two PAS at least?

5 DR. WEISS: Yes, two postapproval studies.

6 DR. HIGGINBOTHAM: Continuing the original  
7 cohort as well as initiating a new.

8 DR. WEISS: Yes.

9 DR. HIGGINBOTHAM: I guess from my  
10 standpoint, the original cohort is certainly going to  
11 be increasingly more difficult to get them in, and so  
12 I would suggest a very simple protocol and maybe just  
13 an annual check and not necessarily bringing them in  
14 as frequently as was done for the original, but I  
15 guess my feeling is that I wouldn't want to burden  
16 this group anymore than they've already been burdened  
17 in general.

18 DR. WEISS: Okay.

19 DR. MATOBA: So could you please clarify  
20 what exactly we're asking now?

21 DR. WEISS: What are we asking them to do  
22 in the seven-year follow-up?

23 DR. MATOBA: Yes.

24 DR. WEISS: Well, I know we're looking for  
25 clinically significant events. I do not know if

1 we're including specular microscopy, and I don't know  
2 if the FDA wants to even comment on that as far as  
3 what's included in the follow-up of the original IMT  
4 group.

5 DR. EYDELMAN: Well, if you have a comment,  
6 please share with us.

7 UNIDENTIFIED SPEAKER: Corneal edema.

8 DR. FERRIS: I have a recommendation, and  
9 that's those clinically important outcomes that we  
10 mentioned assessed yearly is all I need and --

11 DR. WEISS: That's for the long term.

12 DR. FERRIS: -- for a 10-year follow-up --

13 DR. WEISS: Okay.

14 DR. FERRIS: -- on the survivors of that  
15 cohort. They're down to 100 something now, 130 or  
16 something, and so for that 130, try to follow them  
17 once a year.

18 DR. WEISS: Dr. Eydelman.

19 DR. EYDELMAN: The proposed protocol by the  
20 sponsor, I think it's LTME was not just to follow the  
21 LTM patients but to try to take some of the patients  
22 that were enrolled under 002 which did not  
23 necessarily agree to enter LTM so that the LTME  
24 cohort will comprise LTM plus some of the patients  
25 from 002. That's my understanding.

1 DR. WEISS: I think we're in agreement with  
2 that. The question is what happens to them at  
3 different time points? So I think everyone's  
4 agreeing, we would want history, if you went  
5 somewhere for a retinal detachment operation, we'd  
6 want to know if you have a corneal transplant  
7 operation, we'd want you examined on a yearly basis  
8 if you could get in. Would you want corneal  
9 pachymetry? Do you want specular microscopy?

10 DR. FERRIS: I'm happy with really simple.  
11 I'm perfectly happy with trying to get them in. If  
12 you can't get them in, having a phone interview. Did  
13 you have a retinal detachment? They're not going to  
14 know, of course, but at least they'll know they went  
15 to the doctor and they fiddled with them, and then  
16 you can try to find out what happened, but I think  
17 probably most are going to say, you know, I've been  
18 doing fine, and I assume most of them are coming back  
19 for some sort of regular follow-up at some point.

20 DR. WEISS: Dr. Eydelman.

21 DR. EYDELMAN: No.

22 DR. WEISS: So we're basically making the  
23 following out the largest group possible that has  
24 already had the IMT-implanted, having clinical exams  
25 and following them out for a decade to try to



1 determine incidents of retinal detachment, incidents  
2 of corneal transplants, et cetera.

3 DR. EYDELMAN: The only comment I would  
4 have is that if you are interested in the long-term  
5 ECD, that's probably the only group you're going to  
6 get good numbers on.

7 UNIDENTIFIED SPEAKER: I don't care.

8 DR. WEISS: I mean I personally would if  
9 they come in, if we're talking about seeing them  
10 yearly, I would say throw in the specular microscopy  
11 because even at 8 years down the line, if you have 40  
12 percent of the people at a 750 cell count, that's  
13 still going to tell you something even if -- that  
14 will tell you, you may not want to expand this into  
15 the 50-year-old age group. So that will give you  
16 information for some age population. So if it's  
17 possible to do it, I would think it would be helpful  
18 to do. That's my opinion.

19 Does anyone agree or disagree on that?

20 DR. MATOBA: I agree with you, but I would  
21 think about it the other way. If 40 percent had 750  
22 and they didn't have corneal edema, well, maybe 750  
23 is not, you know, maybe those numbers are not what we  
24 should be looking at anyway.

25 DR. EYDELMAN: So either way you want to

1 see the numbers?

2 DR. MATOBA: I mean if -- I guess if they  
3 were coming back to a center.

4 DR. EYDELMAN: I understand your point.

5 DR. MATOBA: I don't know if that would  
6 obligate everybody to get it, you know.

7 DR. WEISS: Okay. Can we move onto d? If  
8 a postapproval study is recommended, then what do you  
9 recommend for the follow postapproval study elements?

10 The objectives. I think we've mentioned  
11 the objectives, complication rates surgically,  
12 retinal detachment rate, incidence of glaucoma,  
13 corneal transplant.

14 DR. EYDELMAN: I believe this particular,  
15 Michele, please correct me if I'm wrong, I believe  
16 you were talking about the newly enrolled patients.  
17 So we're talking about the other study.

18 DR. FERRIS: That's correct. So this would  
19 be -- I don't know how many, whether it's 100,  
20 whether it's 200. The consecutive patients that have  
21 this device implanted, that they're followed for the  
22 next five years. I thought Oliver did a wonderful  
23 job of summarizing those clinically important  
24 outcomes that you would collect annually, and that  
25 would be sufficient from my perspective.

1 DR. WEISS: Is that -- do you have the  
2 information or do you need more specifics from us?  
3 Well, do you want to go five years on that?

4 DR. FERRIS: Pardon.

5 DR. WEISS: Do you want to go five years on  
6 that?

7 DR. FERRIS: Yes.

8 DR. EYDELMAN: Again, I would just like to  
9 clarify without leading the Panel that we would like  
10 the sample size to be based on what we are looking  
11 for, and I just would like to make sure that we still  
12 have some room for coming up with the final sample  
13 size based on what our expectations of this study is.

14 DR. WEISS: So we can't give you an  
15 expectation here of what we would expect certain  
16 complication rates to be. We would defer to you  
17 about that?

18 DR. EYDELMAN: That's absolutely correct.  
19 But if you say what would be clinically meaningful  
20 endpoints, that will give us certainly sufficient  
21 information for us to figure out the sample size.

22 DR. WEISS: Well, is there an endpoint --  
23 we don't know what the retinal detachment rate is.

24 DR. FERRIS: Yeah, I would not do it on  
25 retinal detachment because it would be a humongous

1 study. I'd want to collect them just to make sure  
2 there isn't some epidemic of retinal detachments that  
3 we didn't expect. The number that would drive the  
4 epidemiologic study for these new patients, I would  
5 think, are I'd want to make sure how many have to be  
6 explanted. I want to make sure how many develop  
7 edema, how many develop corneal transplant. I think  
8 I'd use maybe the corneal edema numbers that you have  
9 to say, you know, I'd want some reasonable confidence  
10 intervals around that expected rate of 20 percent or  
11 something. Well, in 5 years, it's going to be 10  
12 percent, you know, assuming that this group is worse  
13 than the controlled study group.

14 DR. MATOBA: Well, I mean, for example,  
15 there were seven patients who had posterior capsular  
16 rupture, that's a lot, and that was 200 some  
17 patients. I'd want to know that that didn't double  
18 in the new group, and there was one suspected  
19 choroidal hemorrhage. I'd want to make sure that  
20 didn't happen again. And then there's a certain  
21 number that were not implanted for some other reason,  
22 and I'd like to know that that didn't double in that  
23 range.

24 DR. FERRIS: All of the operative  
25 complications I think should be --

1 DR. MATOBA: Yeah, all of the operative  
2 complications.

3 DR. WEISS: Dr. Eydelman.

4 DR. EYDELMAN: Yeah, if I can just belabor  
5 the point. Now, thank you for providing the key  
6 safety endpoints. Now, could you venture as to the  
7 targets which would be acceptable or which you would  
8 like to be detectable with the study? So the sample  
9 going back so that we are all talking the sample  
10 size. Obviously I'm not asking you to do the  
11 calculations but --

12 DR. BANDEEN-ROCHE: I agree with  
13 Dr. Ferris. I think that the key is the precision of  
14 estimation, you know, that's what I would want to  
15 determine the sample size, not power against an  
16 alternative which would probably -- I mean against --  
17 alternative which might be somewhat arbitrary anyway.  
18 It's the precision of estimation.

19 DR. WEISS: I don't think we're giving you  
20 what you want, but that's what we're giving you.

21 DR. EYDELMAN: Accepted.

22 DR. WEISS: Accepted. Okay. You're  
23 amenable.

24 DR. EYDELMAN: We need to have an open  
25 public hearing.

1 DR. WEISS: Okay. Yeah, I was looking at  
2 that. So now we're onto the clinically tolerable  
3 rate of severe adverse events, which we did not give  
4 you, and it sounds like we're not giving you.

5 Duration of follow-up of study subjects.  
6 We said five years. Five years.

7 Other specific issues we would like  
8 addressed. Any other issues?

9 DR. MATOBA: Well, can I --

10 DR. WEISS: Yes, Dr. Matoba.

11 DR. MATOBA: I just want to say,  
12 personally, I don't think we need to ask for five  
13 years. We already have a long-term study. So I mean  
14 I'm more interested in what happens when everyone  
15 else starts doing it. Is there a sudden uptake in  
16 intraoperative complications and perioperative  
17 complications, and if we don't see that, and it's not  
18 seen within the first year, I don't necessarily think  
19 we need to ask for four more years of data.

20 DR. WEISS: Well, the question is when do  
21 you think the cornea -- let's say someone is not  
22 doing the best job or it's a more challenging case,  
23 how long do you have to follow them before you see  
24 the cornea decompensate because not all the corneal  
25 edemas will be in the acute period.

1 DR. FERRIS: Well, in fact, there was  
2 that -- at 30 or 40 months.

3 DR. WEISS: That's what I'm asking.

4 DR. MATOBA: I guess I'm not as concerned  
5 about that.

6 DR. WEISS: What do most people want to do?  
7 So are we talking a one-year study, a two-year study,  
8 a five-year prospective study? What's the opinion of  
9 the group?

10 DR. SUNNESS: I think you're talking at  
11 least four years. We don't have any information what  
12 happened between four and five years but, you know --

13 DR. WEISS: So you'd say at least four  
14 years. Dr. Matoba, you'd say --

15 DR. MATOBA: I will defer to the majority  
16 opinion, but I just wanted to say that I don't  
17 necessarily think that that's necessary.

18 DR. WEISS: Dr. Ferris, you'd say how many  
19 years?

20 DR. FERRIS: My view is we've got actually  
21 good data on two years and we have pretty tight  
22 estimates as to what they are. Our concern is there  
23 were a lot of dropouts. We're unsure whether their  
24 complication rates were the same as the ones that we  
25 followed, the 100 that we followed, the 100 followed

1 and the 100 we didn't follow, and so if I have any  
2 concerns at all, it's in that 2 to 5 year range, not  
3 the -- in the 1 to 2, I'm worried about new surgeons  
4 and the operative risks and those complications, and  
5 I'd want to capture them, and then I'm a little bit  
6 worried from the data that we saw that there may be  
7 some 3 year, 4 year, that that's when the corneal  
8 edema is going to show up, and I don't have any way  
9 to prove that it's not. So that's why I'm worried  
10 about that.

11 DR. WEISS: Oliver, a quick comment.

12 DR. SCHEIN: To address Alice's concern, it  
13 would be possible and not burdensome to collect  
14 operative data on a large cohort so you could see  
15 whether the rate of capsular rupture, et cetera, was  
16 much higher than expected, and that would indicate  
17 more training was needed.

18 DR. WEISS: Well, that's one part of it,  
19 but what I'm hearing also is that if we're not doing  
20 the specular microscopy, we do want to follow them  
21 out for a long enough period of time to see what the  
22 effect is. So I would also second a longer study,  
23 and think what? I've heard four years mentioned.  
24 I've heard five years mentioned. Is that good enough  
25 for FDA? I think we are -- Dave.



1 DR. MUSCH: One more comment. Maybe it's  
2 obvious, but I think abrupt loss of vision should be  
3 detected. So I assume you're measuring best-  
4 corrected visual acuity?

5 DR. WEISS: That's a good point. Is FDA  
6 satisfied that we are finished with the questions?  
7 Because we're running behind, we will take a short  
8 break before we vote, but I'd like to go onto the  
9 second open public hearing. We have three open  
10 public speakers. Dr. Hudson is the first.

11 DR. HUDSON: Good afternoon. The first  
12 thing I've been asked to do is read a letter from one  
13 of the patients who participated in the trial who is  
14 my patient, Mrs. Janet Grant.

15 Janet states, "I regret that I'm unable to  
16 attend the meeting to discuss my intraocular implant  
17 this month. I was scheduled for surgery during the  
18 same time as I had a compression fracture in my back,  
19 and gratefully, the surgery was successful. I hope  
20 you will read my letter during the public comment  
21 period since this device has been so important to me.

22 "I've had my implant for five years now. I  
23 was at the meeting two years ago when I spoke to you.  
24 For those of you that remember me, I'm still able to  
25 ride my recumbent three-wheel bicycle and never hit

1 rocks in the road or bump into garbage cans. I use  
2 this lens for this activity as well as for watching  
3 television. However, my bike riding is my primary  
4 exercise to strengthen my body and improve my quality  
5 of life.

6 "Indeed, I believe all the benefits of  
7 exercise have helped me fight off various medical  
8 issues, including my recent back surgery.

9 "There are other benefits as well. The  
10 lens has also given me the ability to identify people  
11 when I'm sitting at a gathering of friends and  
12 neighbors. Also I've gotten a lot of joy and peace  
13 by being able to see the lake as I walk along the  
14 beach." She lives along Lake Michigan.

15 "The lens helps me keep safe as I walk by  
16 allowing me to avoid obstacles washed up on the  
17 beach.

18 "Just before my implant, I had had cataract  
19 surgery in my right eye. Although my vision  
20 improved, my macular degeneration was so severe that  
21 I couldn't see at distance. My implant allows me to  
22 see distances, and I can automatically turn it on and  
23 off using my brain."

24 As an aside, all she does is think the word  
25 telescope.

1            "It's my implant that has allowed me to  
2 stay active. In closing, I want you to know that I  
3 can still look across the room at my six  
4 granddaughters and pick out Erin from Esther, Claire  
5 from Marlie, and Sophia from Hannah. Even if this  
6 were the only benefit, it would be enough for a  
7 beautiful life. Thank you for this time. Sincerely,  
8 Janet Grant."

9            So now you've heard from 2 percent of the  
10 IMT populations.

11           My personal reason for being here is I'm  
12 one of the few retina specialists that was involved  
13 with the IMT-002 trial. I was also the number one  
14 enroller in the clinical trial and the lead author on  
15 two of the three papers. And I wanted to let you  
16 know my perspective and my patients' perspective  
17 about having this device.

18           As you've heard before, before the IMT was  
19 available, essentially what we did with our end-stage  
20 patients is we referred them to low vision  
21 specialists for evaluation after counseling them that  
22 we had no therapeutic options.

23           Unfortunately, what hasn't been mentioned  
24 is these services are expensive, not readily  
25 available in all areas, and not covered by health

1 insurance. And the patients would still come saying,  
2 well, Doc, it helped some, but I still can't see  
3 faces, and I still have other limitations including  
4 in a social environment. Many of them didn't like  
5 the look of the telescope on the glasses.

6 After attending the investigator meeting,  
7 with a lot of strong, preconceived doubts by the way,  
8 I was convinced that we deserved this opportunity to  
9 investigate this device. After I enrolled my first  
10 patient and saw that he was able to recognize faces  
11 on 3 x 5 photographs, 2 months postop, and he hadn't  
12 been able to do this for 15 years, he became very  
13 excited. He hadn't seen anything like that with low  
14 vision tools. He had used low vision tools with only  
15 mild success until the IMT implantation.

16 As further patients were very carefully  
17 selected, enrolled, and implanted, I heard more  
18 stories like this first one. Janet was able to paint  
19 again, and she's a fabulous painter. I don't know if  
20 you've seen her picture, but I think it's one of the  
21 Journal articles. I was able to watch another patient  
22 who was only one week out from surgery sitting in a  
23 truck, as she was told not to be out in the dust and  
24 dirt, watch her great grandson lose a little league  
25 game by dropping a play at the plate, a thrown ball at

1 the plate. I've never seen so many smiles in this  
2 group.

3 Now we finally have something new to offer  
4 our patients. It's an offer that we haven't had  
5 before. The low vision specialists tell us that  
6 there's more things that they can do with these  
7 patients because of the on-the-go and direct and hands-  
8 free nature of the device.

9 Will all the patients be like the ones I've  
10 mentioned? Well, clearly from all the evidence you've  
11 heard today, they won't, but the vast majority  
12 improved, and in my experience, we got better and  
13 better in patient selection and aligning patient  
14 expectations, and you guys covered a lot of that today.

15 I went on to enroll the largest cohort of  
16 patients, and I've seen the full spectrum of the  
17 benefits and limitations, including the suspected  
18 choroidal hemorrhage that wasn't. That was my patient.  
19 The doctor saw darkening of the red reflex, took a look  
20 after suturing the incision, still was uncertain, sent  
21 her to my office five hours later, nothing.

22 What we've also noticed is that a lot of  
23 these patients are very satisfied with the results of  
24 their implantation. I did have one patient request an  
25 explant because of his loss of dynamic range. He was a

1 Stargardt's patient. Despite the fact that he could  
2 see 20/20 at near, he felt he couldn't drive his  
3 tractor safely due to the aniseikonia.

4 One key consideration, the key  
5 consideration, is proper patient expectations and  
6 selection to get the maximum effect from the  
7 technology.

8 So based on my personal experience, I would  
9 love to offer this treatment to my patients. When I  
10 speak at meetings, everyone asks me what's the word,  
11 and I tell them we should have information soon.  
12 It's my opinion this is long overdue, and we should  
13 offer it to the correctly selected group.

14 Most of my patients, if not almost all,  
15 would do it again. So I'm asking you if not this,  
16 then what? If not now, then when? Thank you.

17 DR. WEISS: Thank you. Mr. Dan Roberts.

18 MR. ROBERTS: Thank you very much. I'm  
19 founding director of Macular Degeneration Support,  
20 which is an international organization offering  
21 information and support for people affected by age-  
22 related macular degeneration. I'm speaking on behalf  
23 of a large internet low vision community of about 4  
24 million hits a year on the website plus over 200 live  
25 affiliate groups representing about 3200 previously

1 unconnected senior adults in retirement centers  
2 around the world.

3 I have no financial interest or commitment  
4 to VisionCare Ophthalmic Technologies or any of its  
5 constituents. I've just come here on my own to speak  
6 with a thousand voices.

7 A large part of the mission of MD Support  
8 is to keep people aware of new developments in the  
9 field of vision research. Over the past 15 years, we  
10 have introduced many treatments, surgical techniques,  
11 and assistive devices to our low vision population,  
12 and such information is typically devoured with much  
13 enthusiasm. None, however, has received more  
14 attention than VisionCare's development of the  
15 Implantable Miniature Telescope.

16 Since we started tracking its progress back  
17 in 2004, it's been written about and discussed by our  
18 community more than any other device, and the reason  
19 being that it's unique and that it appears to be both  
20 safe and efficacious.

21 People who have reached their senior years  
22 and developed serious vision loss are interested in  
23 potential treatments and cures, but their main focus  
24 is on maintaining a reasonable quality of life. This  
25 means they gravitate more toward devices that hold

1 the promise of seeing better during their remaining  
2 years.

3           We realize that the IMT may not work for  
4 everyone, and we respect VisionCare Technologies'  
5 honesty in making that clear to the public. We're  
6 also impressed with the care they take in presenting  
7 the option to the patient, specifically the  
8 opportunity to see whether the IMT will work for them  
9 by having advanced hands-on experience with a non-  
10 implanted version of the device.

11           Most important, we need to see research  
12 like this continue. Since all but a few issues have  
13 been satisfied by VisionCare, we're hopeful that  
14 these issues will be settled and that this Panel will  
15 decide in favor of continued progress with the IMT.  
16 If, after all reports are in, we find that it will  
17 not come to pass, at least we will know that our  
18 government has provided every possible opportunity  
19 for us to have access to better vision.

20           By approving further progress in the field,  
21 you will be signaling to patients, sponsors,  
22 investors, practitioners, and scientists alike that  
23 such research is welcome and potentially worthwhile,  
24 and we, on the other hand, will benefit by knowing  
25 that that's still going on and still happening



1 because of your encouragement.

2           In 2008, Dr. Hudson wrote that "three-line  
3 improvement that we had previously shown makes a real  
4 impact on our patients' independence and quality of  
5 life." This is the most significant benefit from the  
6 development of the IMT. It's not going to cure our  
7 disease. It's not going to give us back our normal  
8 vision. The surgery might even destroy a few corneal  
9 cells, but it will give us a chance for better  
10 eyesight, even if only temporarily, and anything  
11 better is an improvement over the years of  
12 progressive vision loss we are all experiencing.

13           We believe that doctors and patients should  
14 be allowed to choose for themselves whether devices  
15 like the IMT will work in individual cases. We hope  
16 this Panel will do everything possible to give us  
17 that opportunity, just as it gave my mother the  
18 opportunity to decide for herself whether cataract  
19 surgery, in spite of its very high risk at the time,  
20 was going to work for her and improve her failing  
21 eyesight.

22           For those of us who are still in the  
23 process of losing vision, favoring such research will  
24 also offer us hope. Our future will be less  
25 threatening just knowing that such devices as the IMT

1 might be available when the time comes, and just that  
2 little bit of hope can significantly relieve the fear  
3 that is one of the biggest reasons for diminished  
4 quality of life. I speak for many when I say that I  
5 can walk with more confidence down this road if I  
6 know that help is waiting for me at each crossing.

7           And finally, by approving further  
8 development of the IMT, you'll be adding another  
9 weapon to the low vision rehabilitation arsenal.  
10 Over the past two decades, our physicians and  
11 therapists have developed a good number of defenses  
12 for us to use against the emotional effects of vision  
13 loss. Such defenses include training in daily living  
14 skills, training in working around our scotomas,  
15 adapting our environment and optimizing our vision  
16 through magnification and better lighting.

17           Until now, however, none of them have  
18 offered long-term vision restoration for people in  
19 the advanced stage of the disease. That stage has  
20 traditionally been one of transition to non-visual  
21 skills such as cane use and Braille. With the use of  
22 IMT, it may be possible for some of us to put that  
23 off indefinitely, and that gives us one more cannon  
24 to fire.

25           I speak with several thousand voices when I

1 ask that you give thoughtful consideration to the IMT  
2 and its potential to enhance the welfare and the  
3 quality of life of all of us.

4 Thank you for your perseverance and your  
5 incisiveness in ensuring that such research as this  
6 be safely and effectively available to all of us. We  
7 appreciate your time.

8 DR. WEISS: Thank you very much.

9 MR. ROBERTS: Thank you.

10 DR. WEISS: We will take a five-minute  
11 break, and then we will be concluding with FDA and  
12 sponsor summations before we vote.

13 (Off the record.)

14 (On the record.)

15 DR. WEISS: Okay. We're going to now  
16 resume the meeting, and we're going onto FDA and  
17 sponsor summations. Are there any further comments  
18 or clarifications from FDA, Dr. Eydelman?

19 DR. EYDELMAN: No, thank you.

20 DR. WEISS: There are not. Okay. Are  
21 there further comments or clarifications from  
22 sponsor, and if so, if you could confine it to five  
23 minutes, I'd appreciate it. I also had a question  
24 for sponsor. If a patient has a capsular tear, can  
25 the IMT still be implanted? And if it cannot, is

1 that in the warnings to the physician? Judy.

2 DR. GORDON: Judy Gordon. If you recall  
3 from the data that we showed, the main reason for  
4 aborting the IMT, meaning the implantation wasn't  
5 even attempted, was for capsular ruptures. That is  
6 in the labeling.

7 DR. WEISS: I don't mean capsular rupture.  
8 I mean a capsular tear.

9 DR. GORDON: A capsular tear.

10 DR. WEISS: So if you don't have a central  
11 capsular rhexis at 7 millimeters or 6.5, if you have  
12 a capsular tear --

13 DR. GORDON: I think Dr. Lane can answer  
14 that.

15 DR. WEISS: -- in the anterior capsule, can  
16 you still put this in? Steve.

17 DR. LANE: Steve Lane. If there was a  
18 small tear in the anterior capsule, I think you'd  
19 have to assess, you know, where it is in relation to  
20 how you're pushing the implant. The haptics are  
21 stiffer than if you remember the old PMMA single  
22 piece haptics. It's a little stiffer than that. I  
23 think it can be done. It depends on the degree of  
24 the tear. If it was a small little nick in the  
25 anterior capsule, I think I would try and put it in.

1 If it was a large tear that looked like it was  
2 getting out toward the equator, I would not.

3 DR. WEISS: Is there anything in the  
4 physician labeling that addresses anterior capsular  
5 tears?

6 DR. LANE: It addresses anterior -- not  
7 anterior capsular tears, Jayne. I think it would  
8 have to be a surgeon call based upon how much and the  
9 direction that it is.

10 DR. WEISS: Okay. That's fine, Steve. I  
11 would just suggest that perhaps we add that,  
12 something about how a physician would address an  
13 anterior capsular tear if they encounter that. So  
14 that's not part of your five minutes, but if you've  
15 got anything that you want to clarify and comment on,  
16 this would be the time.

17 DR. STULTING: We don't need to clarify and  
18 comment, but we would like to use our five minutes,  
19 actually use a lot less.

20 Today you heard from patients who reported  
21 that the IMT "changed my life" and gave clear  
22 examples of this as they reported their positive  
23 personal experience with the device.

24 You also heard from two physicians who  
25 expressed concern about their inability to offer this

1 treatment to their patients today. Indeed, patients  
2 with advanced macular degeneration have a progressive  
3 debilitating disease, and many of them would like to  
4 have the opportunity to have an IMT implanted after  
5 informed consent, acknowledging the risk of corneal  
6 decompensation.

7           We agree with Panel comments that the key  
8 here is to inform the patient adequately about the  
9 risk and benefit of the IMT implantation so that he  
10 or she and his or her physician can together make a  
11 decision about the implantation of the IMT. And we  
12 believe that it is possible for the sponsor to do so.  
13 We believe that the data on the entire cohort support  
14 the safety and efficacy of the device for its  
15 intended use. They also provide enough information  
16 to communicate the benefits and the risks of adverse  
17 reactions to patients as they consider this treatment  
18 option for their incurable disease.

19           We thank the Panel for its thoughtful  
20 consideration of this application.

21           DR. WEISS: Thank you. Before we proceed  
22 to a vote, I'd like to ask Richard Bunner, our  
23 consumer representative, and Barbara Niksch, our  
24 industry representative, if they have additional  
25 comments? Mr. Bunner.

1           MR. BUNNER: From a consumer's perspective,  
2 I do appreciate the due diligence of both the FDA and  
3 the sponsors in looking at this healthcare issue.  
4 You know, from the general press perspective, it  
5 seems like at times our governmental agencies, the  
6 FDA gets beat up pretty bad, and to be able to sit  
7 here as a consumer and see the great care that is  
8 given to just one healthcare issue is very, very  
9 impressive. So kudos to both sides of the issue,  
10 from the sponsor's side and from the FDA's side.

11           I also want to say, too, that it was  
12 interesting from the consumer's perspective having  
13 been here before at the first session and seeing the  
14 concern obviously with the endothelial cell loss  
15 being a big issue and the concern related to that,  
16 and having as a consumer sort of feelings of  
17 misgivings about a product like this, and coming back  
18 again to see the further research and really hearing  
19 the continued testimony of the consumers of this  
20 product. I thought it was very compelling. I know  
21 that those kinds of anecdotal presentations are not  
22 hard science, but they certainly are impressive for  
23 the general public to hear these positive outcomes.

24           So I appreciate the opportunity to  
25 participate in this, and I'm also heartened by the

1 fact that we're going to be giving very careful  
2 consideration to risk education. I think all of us  
3 are consumers of healthcare, and we can all sort of  
4 put ourselves into situations where we've been there  
5 face-to-face with the doctor discussing a medical  
6 procedure and wondering am I getting a clear  
7 description of the risks factors involved with the  
8 procedure I'm considering, and I'm impressed that  
9 we're giving a lot of high priority to the issue of  
10 adequate risk concern for the consumers. So thank  
11 you.

12 MS. NIKSCH: Barbara Niksch. I want to  
13 also thank the Panel today. I think that focus was  
14 maintained, balance was brought forth. I want to say  
15 to the sponsor, on behalf of industry, I think the  
16 sponsor demonstrated extreme diligence and  
17 persistence in their 10 years of running the IMT U.S.  
18 trial. It's a lot of work, and they should be  
19 commended on continuing to collaborate with the  
20 Agency and bring forth the information that they've  
21 continued to do.

22 I do think the Panel's been given  
23 sufficient information on safety and effectiveness to  
24 justify the approval of the device. I think that the  
25 risks have been fully identified. The risk



1 mitigation plan I think was very thoroughly  
2 conducted. The labeling and such we talked about  
3 today I think will offer the consumers, the  
4 physicians the education they need to choose the  
5 right patients, to counsel the patients, to make the  
6 right decision.

7           So on behalf of my role as industry  
8 representative, I appreciate being asked to be here,  
9 and I'm pleased with the information that was  
10 provided, and I hope that the Panel has all the  
11 information they need to find this device approvable.

12           DR. WEISS: Thank you. We are now ready to  
13 vote on the Panel's recommendation to FDA for this  
14 PMA. Mr. Swink will now read the Panel  
15 recommendation options for premarket approval  
16 applications. Mr. Swink.

17           MR. SWINK: The Medical Device Amendments  
18 to the Federal Food, Drug and Cosmetic Act, as  
19 amended by the Safe Medical Devices Act of 1990,  
20 allows the Food and Drug Administration to obtain a  
21 recommendation from an expert advisory panel on  
22 designated medical device premarket approval  
23 applications that are filed with the Agency. The PMA  
24 must stand on its own merits, and your  
25 recommendations must be supported by safety and

1 effectiveness data in the application or by  
2 applicable, publicly available information.

3           The definitions of safety, effectiveness,  
4 and valid scientific evidence are as follows:

5           Safety as defined in 21 C.F.R. Section  
6 860.7(d)(1) - There is reasonable assurance that a  
7 device is safe when it can be determined, based upon  
8 valid scientific evidence, that the probable benefits  
9 to health from use of the device for its intended  
10 uses and conditions of use, when accompanied by  
11 adequate directions and warnings against unsafe use,  
12 outweigh any probable risks.

13           Effectiveness as defined in 21 C.F.R.  
14 860.7(e)(1) - There is reasonable assurance that a  
15 device is effective when it can be determined, based  
16 upon valid scientific evidence, that in a significant  
17 portion of the target population, the use of the  
18 device for its intended uses and conditions of use,  
19 when accompanied by adequate directions for use and  
20 warnings against unsafe use, will provide clinically  
21 significant results.

22           Valid Scientific Evidence as defined in 21  
23 C.F.R. 860.7(c)(2) is evidence from well-controlled  
24 investigations, partially controlled studies, studies  
25 and objective trials without matched controls, well-

1 documented case histories conducted by qualified  
2 experts, and reports of significant human experience  
3 with a marketed device, from which it can fairly and  
4 responsibly be concluded by qualified experts that  
5 there is reasonable assurance of the safety and  
6 effectiveness of a device under its conditions of  
7 use. Isolated case reports, random experience,  
8 reports lacking sufficient details to permit  
9 scientific evaluation, and unsubstantiated opinions,  
10 are not regarded as valid scientific evidence to show  
11 safety or effectiveness.

12 Your recommendation options for the vote  
13 are as follows:

14 1. APPROVAL - If there are no conditions  
15 attached.

16 2. APPROVABLE with conditions - The Panel  
17 may recommend that the PMA be found approvable  
18 subject to specified conditions, such as physician or  
19 patient education, labeling changes, or a further  
20 analysis of existing data. Prior to voting, all of  
21 the conditions should be discussed by the Panel.

22 3. NOT APPROVABLE - The Panel may  
23 recommend that a PMA is not approvable if:

24 - the data do not provide a reasonable  
25 assurance that the device is safe or

1           - the data do not provide a reasonable  
2 assurance that the device is effective under the  
3 conditions of use prescribed, recommended, or  
4 suggested in proposed labeling.

5           Following the voting, the Chair will ask  
6 each Panel member to present a brief statement  
7 outlining the reasons for his or her vote.

8           Thank you.

9           DR. WEISS: Are there any questions from  
10 the Panel about each of these voting options before I  
11 ask main motion for the PMA?

12          DR. SUNNESS: The conditions, does that  
13 mean -- so in other words, if we accept what the  
14 indications are now and the contraindications, would  
15 that mean we would accept it without conditions or  
16 are those conditions?

17          DR. WEISS: Typically when I've chaired  
18 meetings, many of these meetings, the way this runs  
19 is someone will propose for approval with conditions,  
20 and the conditions are many of the things or all of  
21 the things that we suggested. So it could be  
22 labeling. It could be which grid gets used. It  
23 could be removing one of the contraindications. Each  
24 of these can be a condition after someone, let's say,  
25 suggests that be the motion, then that gets seconded,

1 then each condition is then introduced, discussed,  
2 and voted on separately. Once we decide which  
3 conditions are included in that main motion and  
4 conditions, then we vote on the total thing, the  
5 motion of the approval with conditions. Any other  
6 questions?

7           And I would also direct you to the chart in  
8 your folder in terms of how this works.

9           Is there a motion from any of the Panel  
10 members for either approvable, approvable with  
11 conditions, or not approvable? Dr. Edrington?

12           DR. EDRINGTON: I move that we approve with  
13 conditions.

14           DR. WEISS: Is there a second?

15           UNIDENTIFIED SPEAKER: Second.

16           DR. WEISS: I hear a second for the motion.  
17 Is there any discussion on the motion, and by that I  
18 mean any general discussion, or we can then go onto  
19 introduction of the conditions that have been  
20 scribed.

21           Hearing no discussion, if I could have  
22 read -- we're going to read each condition that has  
23 been discussed up to this point.

24           It has been moved that the PMA be approved  
25 with conditions. Please refer to the yellow portion

1 of the voting procedure flowchart in your folder.

2           We are now, as I mentioned, voting on each  
3 of the individual conditions of approval for this PMA  
4 as it stands. So what will be done is a condition be  
5 first recommended, then it will be seconded, and then  
6 there will be discussion about the recommended  
7 condition as it was worded, and then we'll vote on  
8 that condition. If that condition is approved, it  
9 will be the first condition to the main motion  
10 approvable with conditions. We'll then move onto a  
11 new condition and repeat this process until there are  
12 no new conditions and to repeat what I had previously  
13 said. After we have all the conditions, with the  
14 motion, then we will vote on the main motion, which  
15 is whether or not to approve or not approve the  
16 application with all the conditions that have just  
17 been approved by the majority vote.

18           I had Mr. Swink and Dr. Bandeen-Roche do  
19 scribing as we were doing the conditions during  
20 discussion. So if anyone has a particular condition,  
21 we can discuss that or we can just -- if there are  
22 any conditions that you want to recommend, this is  
23 the time to do it. And if there are any ones that  
24 you recall that we've already discussed, you can  
25 recommend those. If there's anything new, you can

1 recommend those, and then we need a second before we  
2 have discussion and a vote.

3 Dr. Bandeen-Roche, do you --

4 DR. BANDEEN-ROCHE: So just state one of  
5 them?

6 DR. WEISS: Yes, state one of them, and if  
7 someone wants to second it, we can second it and then  
8 discuss and have a vote.

9 DR. BANDEEN-ROCHE: So I'll state the  
10 recommendation that there be developed an informed  
11 consent procedure a/k/a the analogy that was drawn  
12 with silicone breast implants, that would include  
13 informed consent capability with respect to cognitive  
14 function being assessed, and in that consent form,  
15 there would be a careful delineation of risks that  
16 the Panel has described, and in some cases that would  
17 include new analyses to delineate those risks as  
18 we've recommended.

19 MR. SWINK: Is there a second?

20 DR. WEISS: Second.

21 MR. SWINK: Discussion.

22 DR. WEISS: Would that be broken up into  
23 two different conditions or is that all the same one?  
24 Would that be the same one?

25 DR. BANDEEN-ROCHE: I consider it the same

1 one but --

2 DR. WEISS: There's second. Discussion. I  
3 see Dr. Eydelman, you --

4 DR. EYDELMAN: It's a prerogative of how  
5 you do it.

6 DR. WEISS: Dr. Szlyk.

7 DR. SZLYK: I have a comment. Would that  
8 include a brochure that would be provided with the  
9 consent form describing the risks?

10 DR. BANDEEN-ROCHE: I would think -- I mean  
11 yes, I was assuming that.

12 DR. WEISS: Dr. Eydelman and then  
13 Dr. Higginbotham.

14 DR. EYDELMAN: Is it your recommendation  
15 that FDA discusses with the sponsor the best way to  
16 educate the patients, or do they want to be more  
17 specific and more prescriptive than that?

18 DR. BANDEEN-ROCHE: So my understanding of  
19 the discussion was that there was a desire to have  
20 some documentation and verification that patient  
21 education had occurred.

22 DR. WEISS: Dr. Higginbotham.

23 DR. HIGGINBOTHAM: Just a point of  
24 clarification. You've noted assess. Do you use the  
25 word assess? I guess the spirit of the discussion



1 was that we would consider cognitive functioning but  
2 not necessarily ask that a neurological assessment be  
3 done.

4 DR. WEISS: Correct.

5 DR. EYDELMAN: I guess I'm not clear.  
6 Who's going to be doing the assessing?

7 DR. WEISS: Would you be able to repeat the  
8 condition and we may need to -- and maybe in the  
9 discussion, what we can do is rephrase it or  
10 wordsmith it so that it's as clear as we want it to  
11 be. So --

12 DR. BANDEEN-ROCHE: So the main part of the  
13 recommendation that they develop an informed consent  
14 procedure, in analogy to the silicone breast implant  
15 procedure that was described to us, that we  
16 communicate to patients the risks associated with the  
17 procedure as we have been discussing them. A number  
18 of specific things were discussed, including a  
19 brochure that would lay out those risks, would  
20 include some additional analyses that do not occur in  
21 the PMA that we discussed, and would be documented  
22 that the education occurred. That's the main part of  
23 the motion. If you want to leave the cognitive part  
24 of it separately, that's okay.

25 DR. WEISS: So sort of to reiterate,

1 something that was more formal and more standardized  
2 from patient to patient of an informed consent  
3 process, that we could be more assured that would be  
4 a standard part of everyone's experience with the  
5 IMT. Dr. Eydelman.

6 DR. EYDELMAN: If I may, I think it would  
7 be clearer if you do break it up into two conditions  
8 and if you specify which analysis. There was a lot  
9 going around. So I understand one about the informed  
10 consent. If the second condition is to do particular  
11 analysis, if you don't mind, I would like it for the  
12 record that you specify which ones it is that you're  
13 actually talking about.

14 DR. WEISS: So what we can do at this  
15 point, would you want us to do an amendment to the  
16 condition or have a vote and basically vote down the  
17 condition and then just rephrase it.

18 DR. FERRIS: Can I make a friendly  
19 amendment?

20 DR. WEISS: Can we make a friendly  
21 amendment to the condition?

22 DR. FERRIS: Or a hostile amendment.

23 DR. WEISS: So I believe she would have to  
24 amend it. Robert's Rules of Order. I should have  
25 brought it with me. Dr. Bandeen-Roche, you're going

1 to offer an amendment to your condition, which is  
2 perhaps what yours might be is to remove the second  
3 portion of your condition and just let's, you know,  
4 address the first portion.

5 DR. BANDEEN-ROCHE: So I do propose to move  
6 the second part of the condition --

7 DR. WEISS: Okay.

8 DR. BANDEEN-ROCHE: -- which I take it is  
9 the cognitive aspect of the condition.

10 DR. WEISS: Do I have a second for that?

11 DR. FERRIS: Second.

12 DR. WEISS: So now we're going to just  
13 address the first portion of the condition, which is  
14 basically the informed consent process of the patient  
15 which will be developed with FDA's input along how  
16 the breast implant consent process was developed. Is  
17 there any discussion on that? Dr. Ferris.

18 DR. FERRIS: I'd like to get the details  
19 out of it. I'd like to say that we would like the  
20 sponsor and the FDA to work utilizing the model set  
21 up by the breast implant post-consent model, or  
22 whatever we're going to call it, and let them work  
23 out the details.

24 DR. WEISS: And I would say specifically to  
25 underscore that we would like the discussion of risk

1 of corneal edema, uncertainty about future risks of  
2 corneal edema and how corneal edema will be treated  
3 in worst case scenario surgically and what the  
4 experience of corneal edema might be like, namely  
5 decreased vision and/or pain in more severe cases.

6 DR. FERRIS: In addition to the  
7 perioperative risks.

8 DR. WEISS: Any other discussion on this?  
9 Dr. Bandeen-Roche.

10 DR. BANDEEN-ROCHE: So I would ask the  
11 Panel whether there should also be information on  
12 estimating the proportion falling below an ECD cutoff  
13 in a certain period of time.

14 MR. SWINK: Are we amending the same  
15 condition?

16 DR. BANDEEN-ROCHE: I think this is a piece  
17 of information to be provided. So I think it's  
18 amending the same condition.

19 MR. SWINK: Okay.

20 DR. WEISS: Dr. Eydelman.

21 DR. EYDELMAN: Can I just bring it back?  
22 Okay. The first condition of approval is that there  
23 is some kind of an informed consent. Now, the second  
24 condition I believe is that there are additional  
25 analyses. So I thought that it was left that the

1 informed consent was going to be -- are you telling  
2 us exactly what you want in the informed consent or  
3 is it that you're trying to do what Dr. Ferris  
4 recommended, that the sponsor and the FDA work  
5 interactively to address what needs to be in it?

6 DR. WEISS: Yeah, I think Dr. Bandeen-Roche  
7 was getting more involved in the specifics of what  
8 should be in that informed consent --

9 DR. EYDELMAN: Okay.

10 DR. WEISS: -- packet.

11 DR. BANDEEN-ROCHE: But I mean what I would  
12 say is that we've had robust discussion all day long  
13 in which a number of very specific things were  
14 mentioned.

15 DR. WEISS: Right.

16 DR. EYDELMAN: That's fine.

17 DR. BANDEEN-ROCHE: And so I --

18 DR. EYDELMAN: We can definitely capture  
19 all of that.

20 DR. BANDEEN-ROCHE: Yes. But then a few  
21 specific things were mentioned by Dr. Ferris, and  
22 then my question to the Panel is whether the Panel  
23 wishes to advise FDA on making information about risk  
24 of falling below a ECD cutoff also available to the  
25 patient or not.

1 DR. WEISS: I'm not sure. That seems quite  
2 complicated to me personally in terms of how that  
3 would get conveyed.

4 DR. FERRIS: I'm perfectly happy to have  
5 the FDA and the sponsor who know the risks well  
6 outline the relevant risks in this document and not  
7 try to wordsmith it tonight.

8 DR. WEISS: Okay.

9 DR. MUSCH: I would second Rick's motion.

10 DR. WEISS: Essentially there is, from what  
11 I understand, consensus that we want a clarified  
12 informed consent process, perhaps likely with a  
13 brochure, likely with a standardized form that the  
14 patient would sign, and there would be confirming by  
15 the patient signing this as part of enrolling in the  
16 IMT process, and the details of what would be put in  
17 that packet would be decided between FDA and the  
18 sponsor. Is this basically --

19 DR. SZLYK: Yes.

20 DR. WEISS: -- the sentiment? Is this --

21 DR. EYDELMAN: More than sufficient.

22 DR. WEISS: That's more than sufficient.  
23 So since that can be the condition that we just  
24 discussed, so now I would ask for us to vote on that  
25 condition. All in favor of that specific condition,

1 please raise your hand. And all opposed raise your  
2 hand. Any abstentions?

3 So that first condition has passed.

4 Is there a second condition?

5 DR. BANDEEN-ROCHE: So a second condition  
6 would be that the informed consent process would  
7 explicitly attend to the cognitive ability of the  
8 patient to, in fact, consent.

9 DR. FERRIS: I thought we covered that,  
10 that they're going to work that out and we don't have  
11 to.

12 DR. BANDEEN-ROCHE: I mean that's okay with  
13 me. I was just trying to read what I had scribed.

14 DR. FERRIS: I understand. So it's my  
15 suggestion that we move to the next one.

16 DR. BANDEEN-ROCHE: So there seems to be  
17 general agreement around the Panel that the condition  
18 is sufficiently clear as we've already stated it  
19 without now augmenting it with a second related  
20 condition.

21 DR. WEISS: Okay. I would also want to  
22 indicate, because I have to, for FDA's purposes, they  
23 need me to indicate who votes on every condition. So  
24 for the first condition, for the record, it was  
25 unanimous among all of the voting Panel members.

1           The second condition that you just  
2 discussed in terms of mental status, the Panel felt  
3 that that was not necessary. So is there a third  
4 condition? Or is there a second condition that you  
5 would like to propose?

6           DR. BANDEEN-ROCHE: So there was a proposal  
7 to make sure that there is a warning to patients  
8 about eye rubbing.

9           DR. WEISS: So would that condition --

10          DR. FERRIS: It's part of this other one.

11          DR. WEISS: Well, I think -- do you need us  
12 to have discussion or to second it or not second it  
13 at this point? Can we discuss it before --

14          MR. SWINK: It has to be seconded first.

15          DR. WEISS: I'll second that only because  
16 we have three aspects here. We have the patient  
17 labeling, we have the physician labeling, and we have  
18 the informed consent, separate informed consent  
19 process. We already have patient labeling in the  
20 book. We already have physician labeling in the  
21 book, and if we're going to talk about eye rubbing,  
22 my presumption is that that would likely be in both  
23 physician and patient labeling, and it can certainly,  
24 probably should get included in the informed consent  
25 process but we -- just because we're having an



1 informed consent process doesn't mean we're not still  
2 discussing the labeling that has already been put  
3 together.

4           So I would second that. With that  
5 understanding, is there any discussion? Do people  
6 want the eye rubbing to be put in physician and  
7 patient labeling?

8           DR. MATOBA: It's in the patient --

9           DR. WEISS: It's already in the patient  
10 brochure. Is it in the physician brochure?

11           DR. EYDELMAN: We can make sure that it's  
12 in everywhere. I don't think that needs to be a  
13 condition of approval.

14           DR. WEISS: So it doesn't need to be a  
15 condition. Fine.

16           MR. BUNNER: Richard Bunner. I heard an  
17 earlier comment this morning, when you read it in the  
18 patient brochure, just from my consumer prospective,  
19 you know, it was a prohibition against it, but the  
20 next question hanging out there is be why? I mean  
21 that's part of the informed consent. It just says  
22 you cannot do it, and I know if I'm having this  
23 operation done, I'd like to know, well, what's going  
24 to happen? I got a little bit of counseling on that  
25 a little while ago, so what the effects of that would

1 be. So I think it would be helpful for the patient  
2 to know what is the result of this habit if they do  
3 it.

4 DR. WEISS: And that can go into the  
5 informed consent process. We don't have to have that  
6 as a separate condition.

7 So we can go onto now another -- we're  
8 still trying for a second condition. This is our  
9 third try. This one will be a gem.

10 DR. BANDEEN-ROCHE: Well, it is, I can  
11 assure you. But this was just a wordsmithing request  
12 that in the contraindications, anterior chamber depth  
13 less than 3 millimeters be changed to central  
14 anterior chamber depth less than 3 millimeters.

15 DR. WEISS: Is there a second for this  
16 motion? Is there a second for the motion?

17 UNIDENTIFIED SPEAKER: That's a refinement.

18 DR. WEISS: I'll second it.

19 UNIDENTIFIED SPEAKER: Does it qualify as a  
20 condition? That's just a refinement of language.

21 DR. EYDELMAN: We can argue over it, and  
22 then we can move on.

23 DR. WEISS: So we don't need to have that  
24 as a condition. Okay. Let's keep on going.

25 DR. BANDEEN-ROCHE: Do you want the --

1 DR. WEISS: We're going to read out. If  
2 they get rejected, that's okay, but we'll reach out  
3 each of the things that were mentioned to make sure  
4 they get --

5 DR. BANDEEN-ROCHE: We'll see if I can go,  
6 what is it, one for four? So there was a request,  
7 and I will need help with this if I get this wrong,  
8 in the physician labeling stating that the  
9 physician's view of the back of the eye will be  
10 limited by the IMT and that this may change the risk  
11 of missing retinal detachment or make surgery more  
12 difficult and the patient should be made aware of  
13 this risk.

14 UNIDENTIFIED SPEAKER: That's part of --

15 DR. BANDEEN-ROCHE: So that's all part of  
16 the same.

17 DR. WEISS: I would -- I guess we need --  
18 I'll second that, but I think we need clarification.  
19 In terms of some of the specifics that we want  
20 patients or physicians to be informed of in labeling,  
21 do you want us putting that in one big package for --

22 DR. EYDELMAN: You can -- I suggest that  
23 you say that you have a condition that a particular  
24 list is be included and then leave it to the FDA to  
25 wordsmith potentially, and that will be one

1 condition, and then you can read the whole list.

2 DR. WEISS: So I think what we're saying  
3 now is instead of having them separate, any of the  
4 things that you have mentioned for patient labeling,  
5 physician labeling, or informed consent, we can read  
6 to get, you know, read one after another, we can --  
7 if it's seconded, we can second it, and then we can  
8 discuss it in one group.

9 MS. WOOD: Madam Chairman, if I could, I'm  
10 Jerretta Wood, the Director of the Advisory Panel  
11 Program. The conversation and the discussion that  
12 the Panel has held today regarding the changes in the  
13 labeling have been heard and will be taken into  
14 account by the Agency.

15 What we're looking for on the conditions of  
16 approval are more of the big ticket items. And if  
17 you remember from all of your Panel training, this  
18 would include postapproval studies, changes to the  
19 indication, or other items that might be major ticket  
20 items.

21 Again, the FDA will review the transcript,  
22 and the changes to the labeling will be taken into  
23 account as well as all other discussion. Does that  
24 help?

25 DR. WEISS: I think that helps. I would

1 want to just clarify, so something in terms of taking  
2 out how -- a recommendation of how a YAG laser gets  
3 done when no YAG lasers have been done in physician  
4 labeling, you've already heard that. You do not need  
5 us to vote on that.

6 MS. WOOD: Right. If it's a major issue  
7 clinically, and I can't weigh in on that, if it's a  
8 major clinical issue that you feel is pertinent, then  
9 you could make that a condition.

10 DR. EYDELMAN: And that's why Dr. Bandeen-  
11 Roche was talking about additional analysis. I  
12 thought that's where you were going, and that's why I  
13 was suggesting that you have that as a condition of  
14 approval which was specifically -- I know Dr. Ferris  
15 was recommending a particular way of analyzing the  
16 endothelial cell data, but we never heard the  
17 consensus. That's a big ticket item.

18 MS. WOOD: That's correct. Again a  
19 condition of approval, it could be a reanalysis of  
20 the existing data or it could be a condition of  
21 approval. It could be changes to the training  
22 program, but if you're looking at the patient  
23 labeling and the indications, the warnings are  
24 already there. That doesn't need to be a condition  
25 of approval. Does anyone have questions about this

1 before you go on?

2 DR. SUNNESS: So do you need a condition  
3 for the postapproval studies then?

4 MS. WOOD: That's correct.

5 DR. SUNNESS: So I move that we add the two  
6 postapproval studies that we discussed, the first  
7 extending out the current study to 10 years and the  
8 second one a 4-year study of the first numbers of  
9 patients, the sample size to be decided by the FDA.

10 DR. FERRIS: Second.

11 MR. SWINK: Discussion.

12 DR. WEISS: Discussion. Dr. Ferris.

13 DR. FERRIS: I'm voting.

14 DR. WEISS: If there's no discussion, can  
15 you repeat that condition and then we can have a  
16 vote.

17 DR. SUNNESS: I move that there be two  
18 postapproval studies, the first an extension of the  
19 initial IMT study out to again I guess this could be  
20 determined by you, 7 to 10 years, and the second, a  
21 study of the sequential patients who are implanted  
22 with an IMT and the specific serious outcomes that we  
23 were interested in.

24 DR. WEISS: Clarified enough? If there's  
25 no further discussion, how many vote in favor of this

1 condition?

2 MR. SWINK: It's unanimous.

3 DR. WEISS: It's unanimous. So for the  
4 record, this condition passes.

5 Is there any other conditions that --  
6 Dr. Bandeen-Roche?

7 DR. BANDEEN-ROCHE: Well, given what  
8 Dr. Eydelman has said, I thought it was within the  
9 first condition, but just to make clear, I would  
10 propose as a condition that analyses of risks of  
11 adverse events be conducted as survival analyses, and  
12 that the results of those analyses, and again, I'm  
13 not going to specify exactly how, between FDA and the  
14 sponsor, be included in the communication of risk to  
15 patients.

16 DR. WEISS: Dr. Matoba, did you have --

17 DR. FERRIS: Second.

18 DR. WEISS: Second.

19 DR. MUSCH: Let me just seek clarification  
20 then since we're discussing this. I assume you mean  
21 adverse events that are not reversible when you  
22 mention survival analysis as the specific technique  
23 to use.

24 DR. FERRIS: They were specifically --

25 DR. BANDEEN-ROCHE: Time to event --

1 DR. FERRIS: -- corneal edema and corneal  
2 transplant.

3 DR. MUSCH: Do you want --

4 DR. BANDEEN-ROCHE: Yes, time to event  
5 analysis --

6 DR. MUSCH: -- time to event analysis?

7 DR. BANDEEN-ROCHE: -- of these, you know,  
8 corneal edema, decompensation, the visual loss, you  
9 know, to the extent that that can be defined as an  
10 event, you know, in a method that appropriately  
11 accounts for censoring.

12 DR. WEISS: Is there any further  
13 discussion? Otherwise, we can have a vote. How many  
14 vote in favor?

15 Again, the decision is passed unanimously  
16 by the Panel.

17 Are there any other conditions that anyone  
18 wants to propose? Dr. Musch.

19 DR. MUSCH: Well, I think we need to at  
20 least decide if the grid is a clear contraindication  
21 or whether we're going to suggest at least that the  
22 FDA and sponsor look at whether it should be  
23 modified. Dr. Eydelman suggested one modification we  
24 might consider, and that is that in the youngest age  
25 bracket, a warning be issued regarding the



1 appropriateness of having a sufficient cell count and  
2 maintain the grid for the remainder of the age  
3 brackets, but I don't know whether we want to get so  
4 detailed. So I don't know how to phrase a motion  
5 there.

6 DR. WEISS: Well, what do you want? So if  
7 you put a motion as far as what you would like as far  
8 as the table to be contraindication -- Dr. Eydelman.

9 DR. EYDELMAN: Can I just clarify  
10 something? I just wanted to make sure that everybody  
11 is clear on that. If there is no contraindication at  
12 all for 65 to 75 age group, and there's only a  
13 warning, that means that anybody can implant any  
14 patient within that age group regardless what the  
15 endothelial cell density is. And there is just sort  
16 of a FYI as a warning letting you know that it would  
17 be nice, but here is information. Just wanted you to  
18 be aware of that.

19 DR. WEISS: So with that information, would  
20 you want to make that as a motion or not?

21 DR. MUSCH: No.

22 DR. WEISS: No condition. Any other  
23 conditions?

24 So just to confirm because many of the  
25 things that were scribed here were labeling issues,

1 because they were in the main transcript, we do not  
2 have to repeat the labeling issues --

3 DR. EYDELMAN: That's correct.

4 DR. WEISS: -- at this point in terms of  
5 conditions, and we have conditions in terms of the  
6 survival analysis and the postmarket studies and the  
7 brochure and -- if you have to leave, Dr. Ferris, now  
8 we probably can -- if we have no other conditions,  
9 then we can just go ahead with the formal vote.

10 Are there any other conditions?

11 So we will now go forward with the final  
12 vote on the main motion. It has been moved and  
13 seconded that the VisionCare Technologies, Inc., PMA  
14 Application P050034 for the IMT, Implantable  
15 Miniature Telescope, be found approvable with three  
16 conditions that the Panel has just voted on.

17 We will now vote on the main motion of the  
18 approvable with conditions with a show of hands.  
19 Please indicate if you concur with the recommendation  
20 that the above named PMA be found approvable with  
21 conditions. All in favor, please raise your hand.

22 And I believe we had a unanimous vote on  
23 that. And the voting members which are unanimous who  
24 raised their hand indicated they concur with the  
25 recommendation that the above-stated PMA is

1    approvable with conditions.

2                    We do not then need to ask if anyone  
3    opposes or is abstaining.

4                    It is then the recommendation of the Panel  
5    to the FDA that the VisionCare Technologies' PMA  
6    Application P050034 for the IMT, Implantable  
7    Miniature Telescope, is approved with the previously  
8    voted upon conditions.

9                    I will now ask each Panel member to state  
10   the reason for his or her vote, starting with  
11   Dr. Ferris.

12                   DR. FERRIS:  I think I've explained in  
13   detail over the course of the day why I voted the way  
14   I did.

15                   DR. WEISS:  Dr. Szlyk.

16                   DR. SZLYK:  I agree that in the hands of a  
17   trained surgeon, this will benefit a large number of  
18   people and that the sponsor and the FDA have provided  
19   sufficient information.

20                   DR. MATOBA:  I agree.

21                   DR. BANDEEN-ROCHE:  I felt that the data  
22   provided reasonable assurance of safety and  
23   effectiveness subject to the conditions and stringent  
24   patient education as to the risks.  I view the  
25   specific contraindications are prudent but really

1 stress that it's most important to characterize the  
2 risks as accurately as possible with the most  
3 representative patient data and to provide those  
4 estimates, for those estimates to be clearly  
5 communicated to prospective patients.

6 DR. SUNNESS: I think that the safety and  
7 effectiveness was discussed comprehensively, and I  
8 feel that's why I voted the way I did.

9 DR. EDRINGTON: It's a wonderful treatment  
10 option for the patient who would benefit from this.

11 DR. HIGGINBOTHAM: Given the burden of  
12 disease, of age-related macular degeneration in this  
13 country and the data that was presented today, I  
14 certainly think that this is a wonderful addition to  
15 the augmentation of our surgeons.

16 DR. MUSCH: When I reviewed the packet  
17 provided by the FDA and sponsor, I was just  
18 overwhelmed with the efficacy of this device, and it  
19 was supported by the anecdotal evidence from people  
20 in this room. I was concerned a bit about some  
21 aspects of the safety, but I was assured by our  
22 corneal and ophthalmologist experts on the Panel here  
23 that it was within reason, and given patients will be  
24 well-informed of the risks, I think we have a  
25 reasonably safe and effective device that we are

1 approving today.

2 DR. WEISS: I'm going to ask the consumer  
3 and the industry reps if they have any comments.

4 MR. BUNNER: Nothing further.

5 MS. NIKSCH: Nothing further. Thanks.

6 DR. WEISS: Then I'd like to thank everyone  
7 for doing a good job. That's my summation.  
8 Dr. Eydelman.

9 DR. EYDELMAN: I just wanted to take this  
10 time to thank my review team who has worked beyond  
11 the reasonable number of hours to make this a clear,  
12 concise presentation. I also want to have a special  
13 thanks to James and Deborah who stepped up and made  
14 sure that today flew very smoothly, which was no  
15 small deed by any means. Also thanks to Dr. Weiss  
16 for making sure we stay on the agenda and actually  
17 finish very close to 5:00 p.m. And thank you all for  
18 doing a great job in your deliberations.

19 DR. WEISS: Meeting adjourned.

20 (Whereupon, the meeting was concluded.)

21

22

23

24

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## C E R T I F I C A T E

This is to certify that the attached proceedings  
in the matter of:

OPHTHALMIC DEVICES PANEL

March 27, 2009

Gaithersburg, Maryland

were held as herein appears, and that this is the  
original transcription thereof for the files of the  
Food and Drug Administration, Center for Devices and  
Radiological Health, Medical Devices Advisory  
Committee.

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