Dr. Krause will read 1 CHAIRMAN LOCICERO: the voting instructions for the panel at this time. 2 DR. KRAUSE: The following are the panel 3 4 recommendation options for а pre-market approval application. Medical device amendments to the Federal 5 Food, Drug and Cosmetic Act as amended by the Safe 6 7 Medical Devices Act of 1990 allows the Food and Drug Administration to obtain a recommendation from an 8 expert advisory panel on designated medical device 9 10 pre-market approval applications that are filed with 11 the agency. The PMA must stand on its own merits and 12 13 your recommendation must be supported by safety and 14 effectiveness data in the application or by applicable publicly available information. Safety is defined in 15 16 reasonable assurance based valid the Act on as 17 scientific evidence that the probable benefits to health under the conditions of intended use outweigh 18 19 any probable risks. Effectiveness is defined as 20 reasonable assurance that in a significant portion of the population the use of the device for its intended 21 uses and conditions of use when labeled will provide 22

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1 clinically significant results.

2	The recommendation options for the vote
3	are as follows. You may recommend approval. Approval
4	would be if there are no conditions attached. The
5	second option is approvable with conditions. You may
6	recommend that the PMA be found approvable subject to
7	specified conditions. These conditions could be
8	things such as physician or patient education or
9	training, labeling changes, further analysis of the
10	existing data. Prior to voting, all of the conditions
11	should be discussed and voted on by the panel.
12	The third option is not approvable. The
13	Panel may recommend that the PMA is not approvable if
14	the data do not provide a reasonable assurance that
15	the device is safe or if a reasonable assurance has
16	not been given that the device is effective under the
17	conditions of use prescribed, recommended or suggested
18	in the proposed labeling.
19	Following the voting, the Chairman is
20	asked to poll the panel members to give a brief
21	statement outlining the reasons for their vote.
22	CHAIRMAN LoCICERO: The Chair will
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1	entertain a motion at this time. Dr. Olding.
2	MEMBER OLDING: I would recommend that
3	this be approved with conditions.
4	CHAIRMAN LoCICERO: Is there a second?
5	MEMBER NEWBERGER: Second.
6	CHAIRMAN LoCICERO: Since we are voting on
7	approval with conditions, then we need to establish
, 8	what those conditions are and discuss each one of
9	those conditions and vote on those prior to voting on
10	the main proposed approval with conditions. So the
11	Chair will entertain a motion for the first condition.
12	MEMBER OLDING: I would recommend that we
13	require a post-approval study of 18-month total, not
14	an additional 18-month, 18-month total and that
15	should I qualify the things that we should look at in
16	those post-approval study or should that be something
17	separate?
18	CHAIRMAN LOCICERO: They can be part of
19	the discussions.
20	MEMBER OLDING: And that we take the
21	opportunity to take a look at the histologic, give us
22	some additional histologic verification of what
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1 happens to the product.

2	CHAIRMAN LoCICERO: Is there a second?
3	MEMBER NEWBERGER: I have a question
4	regarding post-approval studies. Does this mean that
5	the product is approved with the understanding that
6	while it's approved and being employed, these studies
7	will be done or are these short-term studies that will
8	be done prior to its being available on the market?
9	DR. KRAUSE: Well, that's up to you.
10	CHAIRMAN LOCICERO: I guess we can
11	stipulate which it is.
12	MEMBER NEWBERGER: In that case, I would
13	like to stipulate that prior to it being available for
14	general use on the market, that these studies
15	involving further delineation of the histologic
16	character and mechanism of action be done.
17	CHAIRMAN LOCICERO: Okay, that's a
18	qualification of Dr. Olding's excuse me, Mr.
19	Melkerson.
20	DIRECTOR MELKERSON: That condition would
21	actually then mean it's not approvable. In other
22	words, you need to have that study prior to approving
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1 the product so that would not be a post-approval That would actually be data required to 2 study. 3 approve. 4 CHAIRMAN LOCICERO: Okay, that qualifies 5 Would you like to modify your amended it then. amendment? 6 7 MEMBER NEWBERGER: Well, I assume I can't another motion while this one is being 8 make 9 considered, okay. 10 CHAIRMAN LoCICERO: Correct, SO we actually have a motion on the table and that is, post-11 approval study, a total of 18 months 12 addressing 13 We need a second. histology. MEMBER MILLER: 14 Second. CHAIRMAN LOCICERO: Okay, that's seconded. 15 Now we can open a discussion for that motion. 16 17 MEMBER LIETCH: How would we propose to do the histology, biopsying the sites that have been 18 19 injected? 20 MEMBER OLDING: I purposely left that out because I think that's something that we, as a panel, 21 should ultimately discuss, at least to some extent but 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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1 I believe that they need to have some histologic 2 evidence of its presence presumably from the patients that they've already injected and they would have had 3 4 to have injected previously. And yes, I would think it would have to be punch biopsies from the patient 5 that had been treated. 6

MEMBER LIETCH: But would you get it with punch biopsies because that's sub-dermal?

MEMBER OLDING: Yes, you can with deep punch biopsies because it is -- in a punch biopsy you can get more than just dermis. 11

So how big of a punch 12 MEMBER LIETCH: 13 biopsy? I mean, you know, you've got to get the 14 patients to agree to do this after, you know, they've already had the injections, they've already agreed to 15 16 participate in the trial but they didn't agree to 17 that, so you might have to re-consent them for the tissue biopsies. That has to go through IRB. 18 I mean, 19 I don't know how hard it is at the various sites where 20 this was done, but you know, I know in most studies issue of, you know, reconsenting 21 that's a major 22 patients for - particularly for tissue studies.

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1 That's a big deal and then you've got to get the compliance of the patients to agree to do it. 2 It's one thing if up front you say, "Well, 3 4 we're going to inject some in your forearm, we're going to inject in your face and, you know, we'll give 5 it to you free if you'll do this forearm thing, too." 6 7 You know, that's kind of a different sell than saying, "We're going to do this biopsy on your face 8 9 now that you've had the injection, 18 months later". 10 I mean, I just don't know how realistic it is that you'll get what you want. 11 MEMBER OLDING: Good point. 12 13 CHAIRMAN LOCICERO: Dr. Lewis. 14 MEMBER LEWIS: Ι support the recommendation for approval with conditions, 15 but I disagree with the condition specified about a post-16 17 approval study. I don't understand the purpose of that and I don't see the practicality of it. I think 18 19 the ones raised by Dr. Leitch are entirely correct but 20 it seems to me any realistic histologic study in humans would require a fairly lengthy study because 21 22 you'd have to start over. There's no group to be

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followed, so you'd have to start over using a forearm
 or some other site.

don't think biopsies on the face are 3 Ι 4 reasonable. Ι think cosmetically that would be totally unacceptable. I can't imagine that all these 5 patients would agree to that, so I don't think you'd 6 qet sufficient numbers. 7 And it seems to me that the practicalities of doing that are pretty hard, so the 8 only way to do that would be to start out with a new 9 10 group and then run it for whatever period of time you thought was necessary to define the histology, but 11 ultimately, I don't see the purpose of it. 12 There's 13 been nothing here calling in question the safety of the product and while I completely agree with the idea 14 that the ultimate behavior of these granules in terms 15 16 rapidly they disappear of and how they're how metabolized and all of the remains unknown. 17

It seems to me that's an issue more of, 18 19 it's kind of scientific interest but it's not of much 20 relevance to the marketing of a product which is of effectiveness 21 focused on 12 months and is anticipated to have the need for additional treatments 22

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1 in the future. So I quess I really don't understand 2 the rationale for asking that and in particular, when that request strikes being exceedingly 3 me as 4 impractical. So I would -- the condition I would have envisioned was an explicit requirement for physician 5 education relative to the process, but I would not 6 agree with post-approval study. 7 CHAIRMAN LoCICERO: Okay, 8 we need to 9 continue with this. Is there any other discussion 10 from anybody? Dr. Oldling, do you want to modify your 11 proposal?

MEMBER OLDING: Yes, I would retract myrecommendation for histologic study.

14 CHAIRMAN LOCICERO: Okay, the post-market 15 study is retracted. We will now entertain a motion, 16 another motion.

MEMBER LEWIS: Well, my motion would be for approval with conditions, the conditions being an explicit program of physician education addressing the issues we've already discussed about the technical details of doing this and it sounds as if from what's been stated parenthetically in the discussion that

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1 such a thing may be already either in existence or partially in existence and something that would simply 2 address the techniques of how to do this properly, how 3 4 to place it at the proper depth, et cetera, would be, 5 I think, appropriate. CHAIRMAN LOCICERO: Okay, so to make it 6 7 more succinct, that the we are -- you're proposing a physician education requirement. 8 9 MEMBER LEWIS: Yes. 10 CHAIRMAN LOCICERO: Okay, a second to that motion? 11 MEMBER LIETCH: Second. 12 13 CHAIRMAN LOCICERO: Okay, we have а Is there discussion? Yes. 14 second. detailed 15 MEMBER MILLER: How of а 16 recommendation must we provide as far as the education goes? 17 CHAIRMAN LOCICERO: I think we may be able 18 19 to use what we -- how we answered the question. Mr. 20 Melkerson, would you --21 DIRECTOR MELKERSON: In terms of your suggestions, at least points of what you want the 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1	education program to address is probably sufficient.
2	CHAIRMAN LOCICERO: Okay, now we had that
3	discussion and made a summary to one of the FDA
4	questions. Would that satisfy this? Dr. Lewis says
5	yes. Okay, is there any further discussions? All
6	right, let's go with a show of hands, please. All in
7	favor. Okay, I understand we need to do this
8	sorry. Dr. Olding, yes or no?
9	MEMBER OLDING: Yes.
10	CHAIRMAN LoCICERO: Dr. Lewis?
11	MEMBER LEWIS: Yes.
12	CHAIRMAN LoCICERO: Dr. Miller?
13	MEMBER MILLER: Yes.
14	CHAIRMAN LOCICERO: Dr. Li?
15	MEMBER LI: Excuse me, I just want to make
16	sure I know what I'm agreeing to. Are we agreeing for
17	the recommendation for physician education?
18	CHAIRMAN LoCICERO: Yes.
19	MEMBER LI: Yeah, then I agree.
20	CHAIRMAN LoCICERO: Dr. Leitch?
21	MEMBER LIETCH: Yes.
22	CHAIRMAN LOCICERO: Dr. Newberger?
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1	MEMBER NEWBERGER: Yes.
2	CHAIRMAN LOCICERO: Dr. Munk?
3	CONSUMER REP. MUNK: Yes.
4	CHAIRMAN LOCICERO: Dr. Blumenstein?
5	MEMBER BLUMENSTEIN: Yes.
6	CHAIRMAN LOCICERO: Ms. Whittington?
7	PATIENT ADVOCATE WHITTINGTON: Yes.
8	CHAIRMAN LOCICERO: And Dr. Bartoo?
9	INDUSTRY REP. BARTOO: Actually, I don't
10	think I'm allowed to vote, am I?
11	CHAIRMAN LOCICERO: I don't think so.
12	Okay. Good for you.
13	(Laughter)
14	CHAIRMAN LoCICERO: Okay, the condition of
15	physician education passed unanimously. Are there
16	further conditions that the panel wishes to place on
17	this approval with conditions? Dr. Leitch?
18	MEMBER LIETCH: Well, the motion was for
19	the 18-month study as part of the condition or did you
20	withdraw that totally, or just the type of thing
21	first, that's one question I have.
22	CHAIRMAN LoCICERO: It's withdrawn.
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MEMBER OLDING: Withdrawn. MEMBER LIETCH: Okay, so one condition I would say is to have this 18-month follow-up, not have the -- not request the histology but some of these questions about a more detailed report of the texture

of the tissue from the patient's perspective and the 6 7 examiner's perspective and ease or difficulty of subsequent injections over time, what the observations 8 9 are about that. Essentially, more clinical data about 10 it and the question of do patients have events where there is confusion about the physical exam 11 which radiographic evaluations 12 prompts other or even 13 biopsies for assumed problems? What's the frequency with which that occurs? 14

15 CHAIRMAN LOCICERO: Okay, we need to do 16 this in the form of a motion. So you are -- your motion is --17

MEMBER LIETCH: So my condition to add to 18 19 the motion for approval is to complete the 18-month 20 study with parameters that are a little more than what 21 the -- you know, the study things have been done so essentially explicate 22 far to those things I've

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214 1 described. CHAIRMAN LOCICERO: Is there a second? 2 PATIENT ADVOCATE WHITTINGTON: Second. 3 4 CHAIRMAN LOCICERO: You can't second either? 5 MEMBER BLUMENSTEIN: I'll second. 6 7 CHAIRMAN LOCICERO: Okay, Dr. Blumenstein seconds. Discussion? 8 9 DIRECTOR MELKERSON: Are you asking for 10 new data to be analyzed or you are asking for a postaddresses 11 approval study that that type of information? In other words, do you need to have this 12 13 data for approval or you would like it --14 MEMBER LIETCH: Not in my opinion, no. 15 DIRECTOR MELKERSON: So you may want to address that in your motion. 16 17 CHAIRMAN LOCICERO: Okay, so we're saying this is approved with the condition that we evaluate 18 19 the patients up to 18 months who are currently in the 20 study, is that what you're --MEMBER LIETCH: Correct, no new patients 21 and not requiring them to do anything else. 22 There's **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

1 no requirement of the patient other than to show up in 18 months, to address those questions with them and 2 scale for the investigators 3 maybe have to а 4 specifically address those questions. LoCICERO: Okay, 5 CHAIRMAN and expanded questionnaire at 18 months or -- at 18 months. 6 7 MEMBER LIETCH: And for people who are at 12 months, they could use that same questionnaire so 8 they'd have consistency through -- for the people that 9 10 need to get up to the 12 months, if they're not --CHAIRMAN LoCICERO: Discussion about this? 11 Could you define a little 12 MEMBER LEWIS: more clearly what issue you want to address? 13 Do you 14 want the patient's opinion or feedback or do you want evaluator's measurement 15 or something? an What specifically would you like to see? 16 17 MEMBER LIETCH: Obviously, it would be nice to have patient feedback. I think, you know, the 18 19 feedback that's been reported, I think is that the 20 patients are happy with it probably regardless of how 21 it feels because the appearance overcomes the how it For, you know, physician evaluation, a primary 22 feels.

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1 care doctor or whoever is following that patient in 2 the long term, these texture issues may be a problem and it might prompt other -- I mean, that's what's 3 4 being raised, that's the question that's been raised 5 in our discussions here is that there might be a perception of a problem that would prompt 6 other 7 evaluations only to find out it's related to the injections. 8 And so the question -- and then the issue 9

10 of since it's not a permanent product and you have to do sequential injections does that work out to be 11 feasible over an 18-month period of time? So because 12 13 I -- I mean, the other thing I predict is that this will be used for other indications and issues and 14 those points, I think, become more important with 15 16 expansion of use and if -- you know, if you have that 17 data, you can address it one way or the other, the answer to those questions. 18

19CHAIRMAN LoCICERO: Other discussion? Dr.20Blumenstein?

21 MEMBER BLUMENSTEIN: Well, I mean, is it -22 - since I seconded this, I agree that what Marilyn's

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1	characterization of what it was, I agree with that.
2	To address the issue about what we could get out of
3	this, I guess what's bothering me is that I don't feel
4	that there's adequate data on the characterization of
5	the longevity of the device. And it's kind of awkward
6	because it's really part of labeling but yet, I don't
7	think we're asking for it to be a condition of
8	condition of approval. We're asking it be a condition
9	of post-approval.
10	So, I guess I have a question about what
11	happens to data like this. It won't take that long to
12	get the additional data on to 18 months, but what
13	happens if the labeling has already been created? Is
14	there an opportunity to go back and include the
15	additional data in the label, that sort of thing?
16	CHAIRMAN LoCICERO: Mr. Melkerson, yes.
17	DIRECTOR MELKERSON: Post-approval study
18	data generally will require an update of the patient
19	labeling as it exists. So results from post-approval
20	studies will be augmented to the new labeling of the
21	original approval.
22	CHAIRMAN LOCICERO: Dr. Bartoo?
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1 INDUSTRY REP. BARTOO: Just sort of а 2 minor point. It's sounded from the sponsor that they probably have already conducted their 18-month visit, 3 4 so maybe a friendly amendment to the proposal is to 5 just have 18-month or greater in terms of the follow-6 up? 7 CHAIRMAN LoCICERO: Would that be okay? MEMBER LIETCH: That's okay. 8 CHAIRMAN LoCICERO: Further discussion? 9 10 MEMBER LEWIS: I just want to be clear exactly what we're proposing here. We are proposing 11 that basically, the sponsor follow through on the data 12 13 that they're already gathering and just complete that 14 process and submit that. Is that basically what we're 15 proposing here? 16 MEMBER LIETCH: I think that's basically 17 what we're proposing, although I think the data set that we had to look at for the patients that have 18 19 already been examined was -- by people who were 20 reviewing it here, was felt to be insufficient to answer some of these questions about the texture and 21 the ease of injection, these sorts of things. 22 And if

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1 some additional questions could be included, I think it would help to clarify that and make it clearer to 2 physicians what the expectations are over time for 3 4 managing this product in their patients. CHAIRMAN LOCICERO: All right, we have 5 texture, ease of injection, what else? 6 MEMBER LIETCH: 7 And events that require further evaluation because someone examines the 8 patients and thinks there's a problem or they have an 9 10 x-ray done. I mean, this is what's been raised, it can interfere with x-rays. Well, you know, does that 11 happen and what's the sequella of it? I suspect these 12 13 patients haven't been questioned about that. 14 MEMBER BLUMENSTEIN: And the degeneration of effect. 15 16 CHAIRMAN LOCICERO: Qualify that. 17 MEMBER BLUMENSTEIN: Well, when do you need to retreat again? I mean, in my own way of 18 19 thinking about it, I can see a Kaplan Meyer curve that would show time to failure where failure is defined as 20 something appropriate, maybe a one point drop on the 21 scale, something along those lines. 22 **NEAL R. GROSS** 

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1	CHAIRMAN LOCICERO: Okay, let's see if we
2	can get this stated clearly now. The condition that
3	we're voting on is completion of the 18-month or
4	greater study that is currently being conducted by the
5	sponsor to include data on texture, ease of injection,
6	events requiring further evaluation and time to
7	reinjection. Dr. Blumenstein?
8	MEMBER BLUMENSTEIN: Yes.
9	CHAIRMAN LOCICERO: Dr. Munk?
10	CONSUMER REP. MUNK: Yes.
11	CHAIRMAN LoCICERO: Dr. Newberger?
12	MEMBER NEWBERGER: Can you please use your
13	mikes, thank you. Yes.
14	CHAIRMAN LOCICERO: Dr. Li.
15	MEMBER LI: Yes.
16	CHAIRMAN LOCICERO: Dr. Miller?
17	MEMBER MILLER: Yes.
18	CHAIRMAN LOCICERO: Dr. Lewis?
19	MEMBER LEWIS: Yes.
20	CHAIRMAN LOCICERO: Dr. Olding?
21	MEMBER OLDING: Yes.
22	CHAIRMAN LOCICERO: Okay, we have
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unanimous approval of this condition. Is there a
 third condition? Dr. Miller?

MEMBER MILLER: Yes, I would like to add 3 4 the condition that the labeling be very specific, that the indications for using this are for this specific 5 set of patients with lipoatrophy, you know, the AIDS 6 7 related deformity. I think the datas are completely inadequate for going beyond that group. 8 They're 9 barely adequate for that group, but Ι think the 10 benefit is so great that all these open questions we can accept with a degree of uncertainty because the 11 risk posed by those is overwhelmingly, I think, you 12 13 know, counter-balanced the benefit in by these 14 patients, but you move beyond these patients where 15 doing other sites or other kinds of you're 16 deformities, certainly cosmetic patients, I think that 17 the unknowns become very significant at that point and I would -- I think we need to make it as strongly 18 19 worded as possible that the approval is specifically 20 for this PMA and this group of patients.

21 CHAIRMAN LOCICERO: Okay, maybe to state 22 that a different way, you want the condition that the

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222 1 labeling state that there is no data outside of this 2 group of patients. MEMBER MILLER: I quess I'll leave it to 3 4 the experts in forming my words. CHAIRMAN LOCICERO: We're approving the 5 PMA specifically for this indication. 6 7 MEMBER MILLER: That's what I --CHAIRMAN LOCICERO: So it's already 8 9 narrow. 10 MEMBER MILLER: All right. CHAIRMAN LOCICERO: 11 Are you asking for something additional to that? 12 13 MEMBER MILLER: Well, Ι quess just 14 something to emphasize that so it is crystal clear and in how the product is labeled that to used it in an 15 16 off-label fashion is going beyond what this approval 17 is regarding. Do you understand what I'm saying? CHAIRMAN LOCICERO: Mr. Melkerson? 18 19 DIRECTOR MELKERSON: In general, you are 20 approving the specific indication studied. If you are identifying, you would like warnings or precautions 21 about the safety and effectiveness of other locations 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 not being known. Those tend to be warning statements, so if you're suggesting that, that is within their 2 purview but issues related to off-label are not the 3 4 purview of this vote. 5 MEMBER MILLER: Okay, then I would be in favor of a warning that says, "This device has not 6 7 been studied adequately in patients other than these specific AIDS patients and that in other 8 use 9 indications can be hazardous to your health", I don't 10 know, whatever. CHAIRMAN LOCICERO: All you need to do is 11 just stop there. 12 13 MEMBER MILLER: Okay. 14 CHAIRMAN LOCICERO: The label warning is that this has not been studied adequately in any other 15 setting. 16 MEMBER BLUMENSTEIN: I'll second. 17 CHAIRMAN LOCICERO: Okay, that's been 18 19 seconded. Dr. Bartoo. 20 INDUSTRY REP. BARTOO: Ι just have a 21 question of Dr. Melkerson because this product has been cleared with 510Ks for three other indications, 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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1 so how does that play into this?

2	DIRECTOR MELKERSON: The product may be
3	cleared but FDA defines a device by its indication for
4	use and the product itself. So the labeling for this
5	particular product will be reflective of its current
6	approvals or clearances.
7	CHAIRMAN LoCICERO: Further discussion?
8	All right, we're voting on a label a warning label
9	that this product has not been studied adequately for
10	injection in other sites.
11	MEMBER MILLER: Can I ask a question
12	before we vote? I just want to understand for sure
13	what the implications officially of a warning label
14	are. I mean, I don't want to place I mean, I don't
15	have a sense of, in practical terms, when you put a
16	warning label on, what category of products does that
17	suddenly put it into. I mean, is it like cigarettes?
18	I mean, I don't know if it needs a warning label
19	that, you know, we know for certain this causes you
20	harm, but I would like to be sure of the connotations
21	of putting a warning label on it are what I want to
22	communicate.

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1CHAIRMAN LoCICERO:Okay, we can get a2clarification.

DIRECTOR MELKERSON: I'll try to do the 3 4 way I think of it. A precaution is something that you haven't studied it and you don't have an inclination 5 one way or the other. A warning tends to be something 6 7 that you have some information that says it's bad but you -- if you use it on-label, it's fine. And if you 8 choose to use it off-label, buyer beware. 9 In terms of 10 contra-indication, there's actually data that says you should not be using this for that indication for use. 11

12 CHAIRMAN LOCICERO: So do you want to 13 modify your --

MEMBER MILLER: I think it's -- if warning 14 implies that there are data that suggests this harms 15 16 I haven't seen that. But I think that vou, а precaution that data is inadequate to justify or to 17 in other I think that is 18 support use areas. 19 appropriate.

20 CHAIRMAN LoCICERO: Does the seconder 21 agree to a precaution?

MEMBER BLUMENSTEIN: After I make a query.

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1 CHAIRMAN LOCICERO: Yes. What's the difference 2 MEMBER BLUMENSTEIN: between data and information? 3 4 DIRECTOR MELKERSON: In terms of -- again, I was trying to simplify the legal implications but in 5 terms of precaution, you have a thought that there may 6 7 be a problem but you may or may not -- maybe not published, it's just a concern you have. A warning, 8 there's actually some information available to lead 9 10 you to believe there may be a problem. Okay, 11 MEMBER BLUMENSTEIN: that's not quite what you said the first time it seems. 12 Then I 13 would go along with it being a -- what did you call it? 14 A precaution. 15 DIRECTOR MELKERSON: MEMBER BLUMENSTEIN: A precaution instead 16 17 of a warning as long as the tilt can be towards that it's possibly a bad thing. 18 19 CHAIRMAN LOCICERO: We need to get a clear 20 statement of this precaution. MEMBER MILLER: Okay, I would move that we 21 include a condition -- a precaution that it is unknown 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

227 1 how this device performs outside of the indications 2 approved under this PMA. 3 MEMBER BLUMENSTEIN: See to me, that 4 doesn't have a bad thing tilt. 5 MEMBER MILLER: And it can hurt you. MEMBER BLUMENSTEIN: Yeah, okay. 6 7 (Laughter) MEMBER BLUMENSTEIN: I mean, it's merely a 8 hypothesis. 9 10 MEMBER MILLER: Yes. MEMBER BLUMENSTEIN: But I think that, you 11 know, that's what we're here for is to be experts and 12 13 if people feel that it's -- like for example, keloid, 14 if it's felt like that's a bad thing to use this offlabel in a person who has a high keloid potential, 15 16 then we should say that or make it definitely tilted 17 against it. MEMBER MILLER: This is my concern, 18 we 19 don't know. I mean we don't -- I can imagine ways 20 that there could be problems in using this in other settings other than these patients where the benefits 21 suddenly would be overwhelmed by the risk involved. 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 We don't have any information which documents that or proves the but I can envision settings where that may 2 So I'm very comfortable with these 3 be the case. 4 patients doing this, even qiven of some the uncertainties, but beyond that, I'm not. 5 So I quess I'm trying to come up with some way --6 7 CHAIRMAN LoCICERO: Okay, Dr. Lewis wanted

to say something here. Maybe he can help clarify.

9 LEWIS: Ι quess I don't fully MEMBER 10 understand these concerns, because at least in what we've heard here, we haven't really heard of anything 11 harmful coming out of this. We have heard about a 12 13 lack of information about certain aspects of things 14 but I haven't really heard anything that suggests that harmful. 15 this is Ι mean, there have been no essentially real adverse requirements health-wise. 16 17 And the experience that's reported is that this product has extensive and long-term and widespread use 18 19 in multiple other applications without any evidence --20 I mean, harmful to me means it might be carcinogenic, that it you know, improperly used would result in 21 major skin sloughs and other things that would be --22

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1 we haven't heard any of that. So I don't quite I mean, I think what's being 2 understand the concern. requested is kind of a limited use product that's not 3 4 being quaranteed for 10 years and that's what the PMA 5 says and I quess I don't quite understand the concern and caution over saying that this approval is for a 6 7 limited product. And if a statement were put in to say this product has only been tested in the HIV 8 9 positive population, period, I have no problem with 10 that, but the warning aspect of implying that there's something hazardous in the background, it seems to me 11 is not there. 12 13 This is not like cigarette smoking where, 14 you now, it causes cancer. So Ι don't quite understand that concern. 15 16 Shall I try to explain MEMBER MILLER: 17 that? CHAIRMAN LOCICERO: Okay, go ahead. 18 19 MEMBER MILLER: Yeah, I mean, it's -- what 20 you really need to do is give me a statement so that 21 we can vote on it. 22 MEMBER MILLER: Okay. **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

1 CHAIRMAN LOCICERO: All right, so why 2 don't you try writing something down for me and in the meantime, Blumenstein, you had talked 3 Dr. about 4 earlier the fact that there were exclusionary criteria 5 and --MEMBER BLUMENSTEIN: Exactly. 6 7 CHAIRMAN LOCICERO: -- that the point was that this product was not going to be used for those 8 other situations because it hadn't been studied and 9 10 that this would be acceptable in labeling. MEMBER BLUMENSTEIN: Yeah, I mean, I think 11 clear that if you read the list 12 it's very of 13 exclusions, there are certain elements there that can 14 be interpreted as having been put there because of a fear that this would not work as well or maybe have 15 16 some adverse events associated with it or whatever. 17 But the exclusions that are in the protocol are a -an anchor to the concern that -- one of the 18 is 19 least, that we have here and those concerns, at 20 exclusions should possibly be part of this statement 21 because they're in the protocol. 22

Miller, do you CHAIRMAN LOCICERO: Dr.

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1 have something for us?

2	MEMBER MILLER: I'll just say a
3	precautionary statement saying this device has been
4	adequately studied only in HIV positive patients with
5	lipoatrophy and its performance and other indications
6	is uncertain.
7	CHAIRMAN LOCICERO: Okay.
8	MEMBER BLUMENSTEIN: That doesn't get it
9	for me. The population of patients studied is what
10	you said plus excluding patients with high keloid
11	potential, patients with silicone injections, et
12	cetera, et cetera.
13	CHAIRMAN LoCICERO: And actually, we could
14	entertain some exclusions as a separate condition.
15	MEMBER MILLER: My concern is that this is
16	a and maybe Dr. Olding would have some comments on
17	this and maybe my concerns are skewed by the type of
18	patients I see, but you know, this is a scar forming
19	material. This material works by making a scar, okay.
20	Now, that's okay in certain settings, if the scar
21	fills a volume for you and does the job for you. The
22	tissue that's made is a piece of scar. Now, I can

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imagine scenarios where a large plague of scar is not keloid scar desirable. One is former an or а hypertrophic scar former or is somebody with one Scleroderma, you know or some of these disorders that have tendencies toward abnormal scar formation. Now, this is just conjecture on my part.

7 I don't know that there's a concern here but I can envision there being a concern and the other 8 thing I vision is that this will be used widely and 9 10 because there's such a market for soft tissue fillers, and a good long-lasting soft tissue filler, and I 11 envision it being used by everybody with a needle in 12 13 their hand and a patient who wants it. And so I guess 14 Ι would just like to avoid the possibility of discovering the downside of this material by -- just 15 16 by accident because it's being used so widely.

17 You know, this is my concern and I - skewed because 18 aqain, my experience may be the 19 patients I see have complications from this type of thing. 20 Ι mean, they have sinuses and they have 21 scarred areas, but my patients are unusual because they're cancer patients, they get radiation treatments 22

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and all kinds of stuff. So maybe I'm not seeing things in a, you know, proper way.

CHAIRMAN LoCICERO: Dr. Lewis?

4 MEMBER LEWIS: Just in an effort to clarify, if you'll look at the list of exclusionary 5 criteria, most of those things were in there, I would 6 7 quess, simply because they would interfere with the cosmetic assessment of this product, not because they 8 are problems in terms of reactions or whatever. 9 The 10 only one that's really in there that potentially is negative is keloid formers. And so would it be 11 acceptable to say that in your precaution, that this 12 13 product should either by used with caution or should not be used in those with a propensity for a proven 14 history of keloid formation, since that's really the 15 16 only one in there that would seem to be a negative?

17 CHAIRMAN LOCICERO: We need to get 18 something different from Dr. Miller's three paragraph 19 labeling.

20 MEMBER MILLER: And I don't mean to make 21 it complicated but it's tough because of the situation 22 that we're in. We just don't -- I would like to just

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say a precaution that basically what I've already stated. I know Dr. Blumenstein would like something more strong but --

4 MEMBER BLUMENSTEIN: Excuse for me 5 interrupting, but I mean, I'm not an expert and I'll take Dr. Lewis' word if he thinks that the keloid is 6 7 the only one of the exclusions that represents the potential for harm. I mean, I don't know what -- I 8 9 don't know why а prohibition, an exclusion with 10 respect to silicone prior injections was in there, and you may be right. It may be just something that has 11 to do in the context of the clinical trial to not 12 13 interfere with the assessment of the outcome. And T 14 don't know that, but you know, it seems to me and one that I focused on initially was the keloid one. It 15 16 seemed to me that was a --

Well, I certainly have no 17 MEMBER LEWIS: knowledge of the company's motives or putting one or 18 19 It's just my assumption that if you're doing a not. 20 study that involves cosmesis you would not allow other cosmetic 21 inter-current interventions that would interfere with the assessment of that outcome. 22 And it

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1 was just my assumption that that's why they're in 2 The company is here. They can address the there. They, I would think, could comment on that but 3 issue. 4 there's no one has ever mentioned no - any 5 interaction between silicone or any of these other agents and Radiesse and so I know of no reason to 6 7 think that that's a problem. But again, I have no other knowledge. 8 9 CHAIRMAN LOCICERO: Okay, Dr. Newberger 10 wants to comment. MEMBER NEWBERGER: In terms of silicone 11 and any other filler, I think those of us who do use 12 13 this modality have found that people who have had silicone in the past and then will have an additional 14 15 filler, are at an increased risk for getting a 16 hypersensitivity reaction. 17 CHAIRMAN LOCICERO: Okay, Dr. Miller, we still need to get a clear statement that we can vote 18 19 So I'll let Dr. Li make a comment while you on. 20 formulate that. MEMBER LI: I'll give you a few minutes to 21 formulate your idea. As a follow-up to Dr. Lewis, I 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. (202) 234-4433 WASHINGTON, D.C. 20005-3701 www.nealrgross.com

1 can see in one particular case, for instance, sculpture, which is a bio-lactic acid, if that was 2 there ahead of the Radiesse, the bio-lactic acid, 3 4 local ph would certainly, I would expect, accelerate 5 the degradation and dissolution of the HA, the hydroxy So I think, if I could just offer a 6 appetite. 7 comment, I think what you're -- perhaps at least from my -- I'll just say for myself, I think my own 8 9 discomfort here is as Dr. Miller said, it appears as 10 far as they've tested and I understand the clinical protocol was approved by both the company and the FDA, 11 that it kind of just barely satisfies the safety and 12 13 efficacy and that's only if you don't look real hard. 14 And I think that's -- and that's the In other words, you know, we're kind of 15 discomfort. 16 being asked to approve something where we actually 17 don't know how long it stays there. We don't know what the -- we don't know what the reaction is to this 18 19 material histologically and certainly we don't know 20 what it does in a group of patients that isn't immunothe cellular action goes. 21 compromised as far as

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There's probably way more we don't know about this

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1 than we do know about this and I think that's the discomfort, at least I'm feeling, Dr. Lewis. 2 It's not so much that I have a specific thing I'm worried about 3 4 but there is so much basic about this material I don't 5 know, it just makes me worry on this and it would be to no one's surprise if you put this in a patient that 6 7 had either another implant in them or some other kind of pathological thing, that the response is different. 8 I don't think any of us would be surprised 9 10 at that. And I think that's the discomfort and the worry that Dr. Miller is struggling here to get around 11 Maybe it's not but that's my sense of it. 12 it. 13 MEMBER MILLER: No, I think it is. 14 CHAIRMAN LOCICERO: Okay, do you have a statement for us now? 15 16 MEMBER MILLER: Here's the statement. Α 17 precautionary word to say, this device has been studied adequately only in patients with HIV related 18 19 lipoatrophy. It's use for other indications is 20 unproven and may cause adverse results (example, keloid or hypertrophic scar formers). 21 CHAIRMAN LoCICERO: Dr. Blumenstein? 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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238 1 MEMBER BLUMENSTEIN: It's going to take me 2 awhile to parse that. CHAIRMAN LOCICERO: All right, we'll get 3 4 Dr. Bartoo's comment. INDUSTRY REP. BARTOO: Ι just 5 have a In the sponsor's precautions right now, 6 suggestion. 7 in their labeling, proposed labeling, I should say, they have, for example, one of the exclusion criteria 8 9 had to do with pregnancy and they have a statement in 10 there, "Safety of Radiesse for use during pregnancy, in breast feeding females or in patients under 18 11 years has not been established." And I was wondering 12 13 if that type of wording might get to both of your, you know, intents. It clearly states that safety in those 14 situations hasn't been established. 15 16 MEMBER MILLER: I think a sentence like that would just be fine. 17 MEMBER BLUMENSTEIN: Yeah, and would these 18 19 be normally part of labeling? Do you go down the 20 exclusion list and do you put in a statement in the each exclusion or for 21 label for the applicable exclusions? 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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239 1 CHAIRMAN LOCICERO: I think Mr. Melkerson 2 can help us. DIRECTOR MELKERSON: In terms of labeling, 3 4 if you have suggestions along that line, in general we do have precautions that follow exclusion criteria or 5 also suggestions from the manufacturer. And you may 6 7 want to ask them what they think about their exclusions. 8 9 MEMBER BLUMENSTEIN: I mean, that's really 10 all -- that would meet my concerns. MEMBER MILLER: Are we ready to vote? 11 CHAIRMAN LOCICERO: We're getting close. 12 13 Since Mr. Melkerson opened the door, we'll ask the sponsor concerning exclusions that we would list and 14 15 precautions. 16 DR. BASTA: I'll answer that question without the benefit of having the entire exclusion 17 list in front of me, but in general, it would be our 18 19 intent to discuss with FDA the details of the 20 populations at which the material was tested, any populations that were excluded from that that may have 21 impact for patients would 22 а safety clearly be **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 delineated. In the precautionary notes as to what has not been evaluated. And obviously, if the panel votes 2 for an indication in a population, the implication is 3 4 not beyond that in terms of the safety and effectiveness demonstrated based on the data that has 5 been presented to date. But we will certainly take 6 7 under due consideration the nature of the conversation the panel has had and even without specific 8 а condition, we will work with our reviewers at FDA to 9 10 make sure that the labeling is appropriate to address the concerns that have been voiced by the panel 11 through this discussion. 12 13 CHAIRMAN LOCICERO: Thank you. All right, 14 I think we're ready to vote on this condition. This condition is as stated, a precaution, that it has been 15 16 tested only in individuals, HIV patients, with facial 17 lipoatrophy and that it is unclear -- safety in other situations is unclear and the specific exclusions will 18 19 be delineated later. Dr. Blumenstein, vote? 20 MEMBER BLUMENSTEIN: I'm happy with that.

Yes.

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CHAIRMAN LOCICERO: Yes. Dr. Munk?

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1	CONSUMER REP. MUNK: Yes.
2	CHAIRMAN LoCICERO: Dr. Newberger?
3	MEMBER NEWBERGER: Yes.
4	CHAIRMAN LoCICERO: Dr. Leitch?
5	MEMBER LIETCH: Yes.
6	CHAIRMAN LOCICERO: Dr. Li?
7	MEMBER LI: Yes.
8	CHAIRMAN LOCICERO: Dr. Miller?
9	MEMBER MILLER: Yes.
10	CHAIRMAN LOCICERO: Dr. Lewis?
11	MEMBER LEWIS: Yes.
12	CHAIRMAN LoCICERO: Dr. Olding?
13	MEMBER OLDING: Yes.
14	CHAIRMAN LOCICERO: We have a unanimous
15	approval of that condition. Are there any additional
16	conditions? Hearing none, we're ready to vote on
17	approval with conditions as we have outlined. This
18	has been we have a motion on the floor. It has
19	been seconded. Is there any further discussion? Dr.
20	Newberger?
21	MEMBER NEWBERGER: I just would like once
22	again to underline my concern. This is a small study.
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1 MAUDE data base has 45 adverse events reported. Sculptra, which has been available as well, for HIV 2 lipoatrophy, which has been used off-label as well, 3 4 only has 11 in essentially the same time period. I'd 5 also like to underline the aggressive cosmetic off-6 label proposals for this product that have been --7 these are from 2003, okay, and I think that any attempt to really try to keep this to an HIV only 8 indication is not going to -- not going to work out in 9 10 practical terms. CHAIRMAN LOCICERO: Thank 11 you. Dr. 12 Olding, any comments? Anybody else have any comments 13 concerning this motion for approval with conditions? 14 Okay, let's vote? Dr. Olding? 15 MEMBER OLDING: Yes. 16 CHAIRMAN LOCICERO: Dr. Lewis? 17 MEMBER LEWIS: Yes. 18 CHAIRMAN LOCICERO: Dr. Miller? 19 MEMBER MILLER: Yes. CHAIRMAN LOCICERO: Dr. Li? 20 MEMBER LI: No. 21 CHAIRMAN LOCICERO: Dr. Leitch? 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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1	MEMBER LIETCH: Yes, yes.
2	CHAIRMAN LoCICERO: Dr. Newberger?
3	MEMBER NEWBERGER: No.
4	CHAIRMAN LOCICERO: Dr. Munk?
5	CONSUMER REP. MUNK: Yes.
6	CHAIRMAN LoCICERO: Dr. Blumenstein?
7	MEMBER BLUMENSTEIN: Yes.
8	CHAIRMAN LOCICERO: Dr. Whittington, I
9	think you're non-voting. You're non-voting, okay. So
10	we have, okay, five yes and two no. That's a
11	majority. Okay, so Mr. Melkerson, the recommendation
12	of the panel is that the pre-market approval
13	application for Radiesse for the treatment of HIV
14	associated facial lipoatrophy from BioForm Medical,
15	Incorporated be recommended for approval with
16	conditions and the conditions have been outlined in
17	our discussion.
18	Okay, I think it's time for a short break
19	and we'll come back for the second half.
20	(A brief recess was taken at 2:19 p.m.)
21	(On the record at 2:27 p.m.)
22	CHAIRMAN LoCICERO: Okay, we're going to
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start again as everybody filters back in. We have one piece of business before we move on. We need to ask each of the voting members why they voted the way they did on this PMA approval. So we'll begin with Dr. Blumenstein, who voted approval.

6 MEMBER BLUMENSTEIN: I felt the efficacy 7 data showed efficacy in the population studied and 8 again, balanced against whatever safety issues are 9 there in this population, in the population studied is 10 okay, and I have faith that the FDA will make sure 11 that the right labeling is there.

CHAIRMAN LOCICERO: Dr. Munk?

13 CONSUMER REP. MUNK: Yeah, I agree that 14 the application supports the efficacy and safety in 15 the limited population studied for the limited time 16 period of effect.

CHAIRMAN LOCICERO: Dr. Newberger?

18 MEMBER NEWBERGER: I voted against 19 approvable because I felt that this study was quite 20 small, too small for me to feel comfortable about 21 safety and efficacy. I felt it was flawed in that 22 things that had been done for other fillers in the

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1 past with one exception, including histology and more characterization of the basis of mechanism of action 2 were clarified better for other fillers, I didn't have 3 4 any information about this. I felt there wasn't enough rigor and although it wasn't part of this PMA, 5 I felt because of the background of noise in the 6 7 community because it is under such extensive off-label use, what I have seen on that FDA website and what I 8 9 have heard in the community makes me feel quite 10 uncomfortable about its use. CHAIRMAN LoCICERO: Dr. Leitch, let's see 11 if your mike works. 12 13 I voted for MEMBER LIETCH: There we go. do think that 14 approval because I the product is efficacious and in this particular population with 15 16 fairly dramatic results for the people who received it 17 and I quess the -- you know, the patient satisfaction with it as reported was very convincing to me that 18 19 from the patient perspective, the risk benefit ratio them was favorable and there were no 20 for serious 21 adverse events that were reported in this time period, 22 so that accounted for my vote in this particular

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1 circumstance of patients.

2	CHAIRMAN LOCICERO: Dr. Li.
3	MEMBER LI: I voted for not approvable
4	because I just thought that there was the safety
5	and efficacy was again, good to the point that they
6	carried it out. However, it was really in that sense
7	safety and efficacy because they didn't find anything
8	but I don't think they looked hard enough, if you
9	will. For instance, we don't know some very basic
10	information. We don't know, for instance, does it
11	migrate, yes or no. Do we know exactly how far and
12	fast it dissipates and what the variation is between
13	patients, we have no idea. We don't have any idea
14	what the histology is. All we know about all those
15	things is as far as we looked, there doesn't seem to
16	be a particularly large problem, but that's one of
17	those things where we have again, it's the absence
18	of evidence, not the evidence of absence.
19	So we also don't know things we haven't

So we also don't know things -- we haven't exactly talked about, for instance, we touched on the use of this after you've used some other filler, there might be some interaction. We have no idea what that

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is. We have no idea what the dose response is. The physicians are left to decide if they need a little some undisclosed touching up, add to amount or undetermined amount until the physician decides at that moment how to add. So we have no idea, for instance, what the dose response is of this.

7 And in general, I feel that if we offer approval, the barn door is kind of open at that point 8 9 and any post-approval is almost, it's almost useless. 10 So I think if you're going to do anything to try to answer any of these questions, in my view these have 11 do ahead of approval and there are other 12 to skin 13 fillers out there, so it's not like we're depriving a community of any skin filler whatsoever. 14 And that's why I voted no. 15

16 CHAIRMAN LOCICERO: Dr. Miller?
17 MEMBER MILLER: I voted yes because I feel
18 like the sponsor demonstrated efficacy in this group
19 of patients and a risk profile that was acceptable for
20 this group of patients, so I voted yes.
21 CHAIRMAN LOCICERO: Dr. Lewis?

MEMBER LEWIS: Basically the same answer

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as Dr. Miller. I thought in this group of patients they demonstrated safety and efficacy and while I agree with what the other panelists have said in terms of shortcomings, it seemed to me that they were not directly sufficient to preclude approving this based on what was shown.

CHAIRMAN LoCICERO: Dr. Olding.

MEMBER OLDING: I voted for 8 approval 9 although I do have some concerns about the lack of 10 information regarding the histology, the length of durability 11 but there have been no significant potential complications noted. And in this patient 12 13 population, the quality of the photographs that we saw today, the quality of the improvement compared to 14 other treatments that are available I think surpassed 15 16 least photographically they do. And those, at 17 therefore, I feel that it is certainly demonstrated its effectiveness safety ratio. 18

19CHAIRMAN LoCICERO:Mr. Melkerson, would20you care to make a statement?

21 DIRECTOR MELKERSON: First, I'd like to 22 thank the panel for their in-depth discussions of the

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issues, but I had a request from the audience to clarify the vote because they heard six yeses and two voting against. Please clarify the voting status of the different members for the audience and the final vote was five/two, I believe.

CHAIRMAN LOCICERO: It's -- the final vote 6 7 is five to two. Dr. Munk, actually, technically can't vote. Before move into the 8 we sponsor's 9 presentation of the next PMA, we'd like to open for 10 public comment. Is there anyone who wishes to publicly comment at this time? We'll dispense with 11 the reading of the necessary public comment statements 12 13 and go directly into the applicant presentation. This Medical Radiesse 14 is BioForm for treatment of nasolabial folds. 15

16 Thank you. Excuse me for one DR. BASTA: 17 second. Since this is a new PMA, I'll introduce Steve Basta, I'm the President and 18 myself again. 19 Chief Executive Officer of BioForm Medical. For the 20 record, my presentation for this PMA in terms of background regarding Radiesse, regarding the company 21 and the context of multiple clinical studies that we 22

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1 have conducted with Radiesse would involve the same slides and rather than going through those slides, I 2 would offer to the panel, we could either go through 3 4 those slides so that they are on record for this PMA LoCicero, Ι don't know if it 5 or Dr. would be appropriate for the panel to accept that those slides 6 7 will be entered into the record rather than listening to them a second time. But we're certainly happy to 8 9 do so as you would feel appropriate. 10 CHAIRMAN LoCICERO: Ιf everyone is comfortable, we'll dispense with 11 the introductory slides. 12 Okay. 13 Then by way of an introductory DR. BASTA: 14 statement, thank you very much to the panel members for the due deliberation in the morning session. 15 This 16 afternoon we will be presenting to you the results of a double-blind controlled clinical study and with the 17 treatment of Radiesse for nasolabial folds. Dr. Larry 18 19 Bass will make that presentation. He was one of the 20 treating investigators. Radiesse is the first product 21 to be presented to the panel for two facial aesthetics indications with two clinical studies conducted under 22

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1 US IDEs.

2	The clinical study which is being
3	presented this afternoon is a clinical study done
4	under an IDE reviewed by FDA with a protocol that had
5	been agreed to by FDA is consistent with the design of
6	other clinical studies that have been performed for
7	other dermal fillers and in fact, addressed some of
8	the observations of this panel in past sessions
9	regarding deficiency and some of those clinical trial
10	designs so that we could optimize the study for this
11	material.
12	We have integrated those comments into the
13	protocol review of FDA and per that approved protocol,
14	we conducted a clinical study in 117 patients, head to
15	head. Dr. Larry Bass worked through that clinical
16	presentation. This is the third pivotal study for PMA
17	review and approval that is being done with this
18	tissue augmentation material and reflects the breadth
19	of clinical data now in 296 patients in neurology
20	applications, 100 patients for HIV lipoatrophy and 117
21	patients for nasolabial folds. We believe this is a
22	very well-studied tissue augmentation material with

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1 extensive clinical history.

2	DR. BASS: Thank you. Good afternoon to
3	members of the panel. As Mr. Basta mentioned, I was
4	an investigator in this clinical trial and served as a
5	consultant to the company in that regard and have also
6	been compensated for my time at this meeting as well
7	as my travel expenses. So we'll have a short
8	interlude. There we go, okay.
9	As Mr. Basta mentioned, this is a little
10	different study from the earlier presentation. This
11	is a prospective randomized controlled split-face
12	trial comparing Radiesse in one nasolabial fold and a
13	control material CosmoPlast in the other nasolabial
14	fold in each patient. Basically, the data that I'll
15	present demonstrated Radiesse to be safe, a safety
16	profile of Radiesse in this study which was a
17	comparison study, was comparable to that seen for the
18	collagen control material that's been widely available
19	for a great period of time. And 87 percent of the
20	folds were demonstrated to be improved at three
21	months, meeting the primary effectiveness end point,
22	82 percent of folds improved at six months. So that

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all the secondary end points as well, at six months, were met. And there were a number of assessment methods used which I'll delineate in more detail.

4 As you heard there were 117 patients at four sites. The effectiveness measures made at three 5 and six months included photographic assessments by 6 three blinded evaluators. 7 They primarily evaluated Lemperle Rating Scale as the primary end point and 8 9 then global aesthetic improvement scale as a secondary 10 measure. There was also a confirmatory effectiveness measure by the treating investigators, a live GAIS 11 well as patient/physician preference 12 assessment as 13 ratings. And again adverse events were assessed along 14 the way.

This slide demonstrates the structure of 15 16 the Lemperle Rating Scale. Patients receive a grade 17 from zero to five based on wrinkle depth and investigators -- I'm sorry, blinded evaluators sitting 18 19 by themselves in a room would get a stack of left 20 folds or a stack of right folds. They never saw both sides of a given patient at any one point in time 21 together and they would compare that picture against 22

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1 the standardized scale to create a grade for how deep nasolabial fold was. 2 that The qlobal aesthetic improvement scale is a comparative scale looking at 3 4 the degree of improvement compared to the patient's this baseline photograph 5 baseline, in case, so Lemperle а ordinal scale, it's validated and 6 is 7 published based on standardized photographs.

The patient photographs 8 were compared 9 against those standard photographs and each evaluator 10 made their rating separately and independent of any other time point in the study or the contralateral 11 fold in any given patient. The GAIS is a relative 12 13 This was done, again, at a distinct time assessment. point from when the Lemperle ratings were done and it 14 was a comparison of the patient's baseline photograph 15 16 on one side with some later time interval photograph 17 on that same side. Again, there were no contralateral comparisons made. 18

19 This This slide provides study an 20 example of how patients entered the follow-up period. They basically received 21 between one and three 22 injections to whatever it took to achieve an optimal

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1 improvement on each side and that could be a different number of injections on each side. So for example, on 2 one side a patient might require two injections to 3 4 reach optimal. That side would them be timed from the point where the optimal injection was performed and 5 they would be seen three months after that second 6 7 injection. On the other side, they might only require one injection to reach optimal correction and they 8 9 would then be seen separately for their three month 10 visit of that fold when three months from that injection had been performed, trying to 11 keep the intervals exactly synchronized 12 from optimal 13 correction.

14 Photographs were taken at the baseline visit and at each effectiveness end point. 15 This was 16 performed at the investigational site and then sent off to Canfield Scientific Lab. 17 It was at Canfield that the three blinded evaluators performed their 18 19 ratings independent of the sponsor and independent of 20 the investigator sites. And you see on the bottom part of the slide patients could have up to three 21 22 corrections. They were then seen at three months for

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primary end point, at six months for secondary end point.

At that point, they could receive a touch-3 4 up injection on one or both sides and were then followed out to 12 months for any adverse events. A11 5 local and systemic adverse events were recorded on 6 7 both the Radiesse and control sides through the 12 months of the study and this was done in the following 8 9 several ways. Each patient was called 72 hours after 10 each injection and asked if they were experiencing any recorded. 11 problems. These were Each patient completed a diary for two weeks after each injection 12 13 and was seen one month after each injection for a 14 physical examination by the physician, aqain, to 15 assess for any adverse events.

16 At any other visit that the patient came 17 in effectiveness visits or otherwise, the patient would likewise be evaluated by the physician for any 18 19 adverse events and any observations that were reported 20 by the patient at any point in time in the study were likewise recorded. This 21 slides lists the four investigational There were 22 sites. three plastic

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1 surgeon -- I'm sorry, three dermatologists and one plastic surgeon involved in the study located 2 in geographically diverse areas. 3 А listing of the 4 inclusion criteria, both folds had to have either a 5 rating of three or four on the Lemperle Rating Scale. If there was a higher or lower rating on either side, 6 7 the patient was not included.

Patients had to be over 18, willing to 8 sign an informed consent, and able to become available 9 10 for the required follow-up visits and not undergo any other treatments. There was a list of exclusion 11 criteria similar to the earlier study that you saw, 12 13 to various medical conditions, mostly relating medications or other treatments which might interfere 14 with the assessment of the outcome. Fifty-five or 47 15 16 percent of the patients had a score of three on both folds and then approximately 17 to 18 percent of 17 patients had the other permutations of three and four 18 19 Lemperle rating scores between the two sides.

This shows some of the demographics of the patient group. Ninety percent of the patients were female in distinction to the earlier study and 13

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1 percent of the patients were non-Caucasian. Aqes ranged from 31 to 76 years. 2 Basically looking at the two Radiesse facial clinical studies, in aggregate a 3 4 large body of non-Caucasian were examined and in those two studies no clinically significant adverse events 5 were observed in any of the non-Caucasian patients. 6 7 There was no evidence of keloid formation or hyperpigmentation for Radiesse in any of the non-Caucasian 8 There were significant differences in the 9 patients. 10 number of injections required to achieve optimal correction between the Radiesse and control sides. 11 So 52 percent of the patients achieved optimal correction 12 13 with one injection only on the Radiesse side compared to 32-1/2 percent in the control group and that was a 14 statistically significant difference. 15

16 Likewise, the difference between two injections and three injections was also significant 17 and only a small percentage of patients required three 18 19 injections in either side. Radiesse also required 20 significantly less total volume injected to achieve 21 optimal correction. The average was 1.2 milliliters on the Radiesse fold with an average of double that, 22

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1 2.4, on the control side.

2	I wanted to take a moment and say a few
3	things about how the evaluations were done, the
4	Lemperle Rating Scores, because that's critical to
5	determining the validity of effectiveness. The
6	evaluators were blinded to the treatment assignment.
7	They didn't know that this was an injectable filler.
8	They didn't know how many treatment groups there were
9	or really anything else about the study. They were
10	just asked to provide scores on the two grading
11	scales. Each of the evaluators worked independently
12	and each fold was assessed compared to the standard
13	scale in a large group of folds. For the Global
14	Assessment Static Improvement Scale it was by
15	comparison of the baseline photograph.
16	The photographic technique was
17	standardized and supervised by Canfield at all the
18	investigator sites and the blinded evaluators were
19	chosen and managed by Canfield Scientific completely
20	independent of the sponsor or the investigator sites.
21	So I'll show a few representative examples of how
22	these patients did over the six-month effectiveness

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1 assessment range and the study. This patient you see 2 at baseline and then at optimal correction and now at three months and six months there's a good persistence 3 4 of correction and total volume used was 1.5 ml. On the control side, again, good correction 5 at this but the three and six-month 6 optimal point at 7 intervals, pretty much a baseline appearance to the nasolabial fold. Notice also that more than twice as 8 9 much material was used, so this was a very extensive 10 injection of material in an attempt to obtain optimal correction. 11

examples 12 The other are qoinq to 13 demonstrate substantially the same thing. Baseline, optimal correction, Radiesse side, still an excellent 14 15 correction at three months, slightly less at six 16 On the control side, again, good correction months. obtained but baseline at three and six months with 17 twice as much material used. Yet another example, 18 19 Radiesse correction at three and six months, not quite 20 as good at six but not at baseline. Early correction 21 and then baseline at three and six months, good 22 correction with reasonable persistence and on the

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control side, a return to baseline at three and six
 months.

So looking at this data tabulated in terms 3 4 of efficacy; at three months, the blinded Lemperle 5 Rating Scoring showed 87 percent of the patients, one Lemperle Score or more improved on the Radiesse side 6 7 and that was compared to 27 percent of the control sides being one point or more improved. 8 When we 9 compare how much of a change on the Radiesse side 10 compared to the control side, how much of a change in Lemperle Rating Score, it was a greater score on the 11 Radiesse side in 85 percent of the patients. 12 It was 13 about the same improvement in Lemperle Rating Score in a little more than 10 percent and that was obviously a 14 very significant result. 15

When we look at six months, the numbers are very much the same, 82 percent of Radiesse sides improved one point or more, 27 percent of control sides and 79 percent of the Radiesse sides had a greater Lemperle score improvement than the control side and again about 15 percent had the same amount of improvement as the control side. When we look at how

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much improvement that was, of course, at optimal correction you're going to be very nicely improved but at three months Radiesse patients on average or the Radiesse side on average had a 1.5 point improvement in Lemperle rating score and that tailed off slightly at six months but was about one and a quarter.

7 Again, the control sides, as you saw from the patient photographs, was completed consistent with 8 the tabulated results, was back at baseline at both 9 10 integrals. Now, if we look at the blinded GAIS at three months, so this is the scoring done by the 11 independent evaluators, 96 percent of 12 blinded the 13 patients were improved or better on the Radiesse side 14 and only 25 percent were improved or better on the The amount of upgrading on the GAIS, 15 control side. 16 the amount of improvement was superior on the Radiesse 17 side in 84 percent of the patients and equivalent in about 15 percent, so very consistent with the Lemperle 18 19 rating results.

20 At six months, again, a similar story, blinded 21 this is aqain, the GAIS done the by independent evaluators. Eighty percent of patients 22

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1 improved or better on the Radiesse side, 23 percent improved or better on the control side and 75 percent 2 of the Radiesse sides had a 3 greater degree of 4 improvement, more upgrading on GAIS. If we compare 5 that with the live investigator assessments, aqain, there's a consistent result. The investigators graded 6 7 94 and a half or 94.6 percent of the Radiesse sides as improved or better and only 2.7 percent of the control 8 9 sides as improved or better at the six-month interval. 10 If we compare the photo Lemperle rating with the photo GAIS rating, again, the numbers, as I 11 mentioned before, line up to be very similar, very 12 13 consistent result at six months. If we compare the 14 live GAIS and photo GAIS, again, similar, the live 15 demonstrate little assessments seem to а more 16 improvement but basically a consistent pattern of 17 result.

Patient and physician satisfaction at six months was virtually identical and the patients were blinded to which treatment took place on which side when they made this preference assessment. Ninetyseven percent of physicians and 97 percent of patients

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1 preferred the Radiesse side to the control side. Here 2 are a few more representative examples of a good early optimal correction with good persistence at three and 3 4 six months and again, very deep fold but a good correction early on with return to baseline on the 5 control side. Early correction and excellent 6 7 persistence at three months, slight tail-off at six months but nowhere near baseline on the Radiesse side, 8 9 and the control side, back to baseline. Aqain, qood 10 early correction compared to baseline, well-maintained over the six-month period on the Radiesse side and 11 tailing off here and back to baseline at six months on 12 13 the control side.

Good early correction, some drop-back but 14 not to baseline and early correction and return to 15 16 baseline on the control side, again in all cases, with significantly more material used on the control side. 17 And a final example, good early correction and really 18 19 with a very modest volume, very good maintenance of the correction and very good correction early on the 20 control side with a return to baseline. And we showed 21 all these examples to show that it's not just an odd 22

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patient or a few selected patients that really look best but you can show this again and again and again and again. It was very consistent across the study. And finally, again, good maintenance at six months, good early correction but return to baseline.

When we compare the results evaluator to 6 7 evaluator, the evaluators were fairly consistent. This is Lemperle Rating Scale superiority evaluation, 8 very consistent between the three evaluators. And 9 10 aqain, the blinded evaluators comparing intraevaluator very consistent at this time interval and 11 when we compare one investigational site to another, 12 13 all the sites varied no more than .2 of a point from 14 the mean Lemperle Rating Score improvement so there was very good consistency in the correction obtained 15 at each investigator site. 16

Overall, I feel this data has demonstrated Radiesse to be effective with 87 percent of Radiesse patients improved at three months, 82 percent improved at six months; therefore, the primary end point which was the three-month end point with Lemperle Rating Scale was met and the secondary end points at six

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1 months were met by each of the assessment methods, the Lemperle Rating Score and the blinded GAIS, the blind 2 GAIS and patient and physician preference. 3 There was 4 more than one point of mean improvement in Lemperle Rating Score compared to the control at both three and 5 six months and this was consistent across all the 6 7 evaluators, all the investigator sites and all of the evaluation measures. 8

it was one of the panel questions 9 Now, 10 regarding the performance of the collagen control in this study, so I wanted to take a moment and provide a 11 little bit of context for that because basically the 12 13 collagen control showed no improvement, again, back to 14 baseline three and six months on the Lemperle Rating 15 Score. You know, in some ways that correlates with my 16 clinical expectations of collagen durability and it correlates with some of the results seen in other 17 injectable filler trials that have probably been 18 19 presented before this panel but again, to provide a 20 little perspective on it, first, the collagen was administered according to the labeled instructions of 21 use and the treatment volumes were not restricted, in 22

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fact, quite substantial treatment volumes were administered in an effort to obtain optimal correction.

4 And so the collagen did work in the sense that it did create a good early correction. 5 It's just that the durability of that correction was shorter 6 7 than the assessment time points in the structure of this study. So what I'm going to do is show you the 8 9 baseline and optimal correction time points, not for a 10 selected group of patients but for the first four patients from the first two sites so that you can see 11 that collagen did, in fact, work. It did produce a 12 13 It's just by three months that result was result. 14 largely gone. So, again, you see the Radiesse side on top but the control side, which is the side that we're 15 16 this point looking at is on the bottom and an 17 excellent optimal correction early in Site 1 Patient. Site 1, Patient 2, again, a comparable degree of 18 19 correction to what was obtained on the Radiesse side, 20 Patient 3, comparable optimal correction, Patient 4, and going to Site 2, Patient 1 with a comparable 21 degree of correction from baseline, Patient 2, 3, and 22

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2	So the collagen produced the end point we
3	were looking for. It just didn't last as long as,
4	perhaps the study construct expected it might. And
5	then when you follow those patients over time, this is
6	Patient 1 from Site 1, again, well corrected initially
7	but at three and six months, baseline with more than
8	twice as much material used, while the Radiesse side
9	maintains a good correction. And Site 1, Patient 2,
10	same things, well corrected initially, returning to
11	baseline and back at baseline with a good persistent
12	correction on the contra-lateral Radiesse treated
13	side.
14	In terms of safety results in this study,
15	Radiesse demonstrated a comparable safety profile to
16	collagen. There were no unanticipated adverse device
17	events. The adverse events that were seen were
18	transient and they were typical injection related
19	kinds of adverse events that are seen with all dermal
20	fillers. No granulomas were seen and there were no
21	serious adverse events. This table summarizes the
22	percentage of folds experiencing each adverse events

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1 category at some point in the study. And you can see, there's quite a significant amount of edema, erythema 2 and ecchymosis and, in fact, that was significantly 3 4 more in terms of edema and ecchymosis on the Radiesse side than the control side. All of the others were 5 not dissimilar. They were comparable. And these were 6 7 all short-lived, typical kinds of things. The other category was a category that included things like 8 9 when the patient said soreness instead of soreness, 10 pain, it wasn't listed as pain, it was listed under Headache, 11 other as soreness. numbness and this lumpiness, which distinct from 12 category was the 13 physician determined presence of nodules, which you see was quite small in both sides and in fact, 14 was 15 only one patient on the Radiesse side and four 16 patients on the CosmoPlast side, but not significantly different. 17

So in conclusion, this study to my mind, demonstrated a safety profile for Radiesse that was comparable to that seen with collagen. The primary effectiveness at three months was demonstrated and all of the secondary effectiveness end points at both

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1 three and six months were demonstrated with more than 80 percent of the folds improved or better at both of 2 those time intervals. Radiesse demonstrated clear 3 4 superiority to the collagen control material at both 5 three and six months both by the Lemperle Rating Scale and the Global Aesthetic Improvement Scale and patient 6 7 preference and physician preference was overwhelmingly in favor of the Radiesse side compared to the collagen 8 side. 9 10 So in summary these two pivotal studies of Radiesse demonstrated the use of Radiesse to restore 11 soft tissue facial contours in a total of 217 patients 12 13 between the two studies and we saw more than 80 14 percent of patients improved at both three and six 15 months and 100 percent of the facial lipoatrophy 16 patients were improved at three, six and 12 months. 17 Thank you. DR. BASTA: this point 18 At in the 19 presentation, we would, per the request of FDA in 20 terms of preparing for this panel presentation, also present again, radiology study, the findings -- the 21 clinical observations of the patients that were in the 22 **NEAL R. GROSS** 

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1	radiology study and we have more patients for with
2	nasolabial fold treatment in that study as well that
3	we could show you images from, but it is substantially
4	the presentation that you have already seen and so,
5	Dr. LoCicero, I would ask for your guidance as to
6	whether we should just submit that for the record and
7	consider that presentation to have been made at this
8	meeting or if you would like to have us go through
9	that again.
10	CHAIRMAN LoCICERO: Does the panel agree
11	that we don't have to do that again? Okay, so we'd
12	like you to just put that with the presentation to the
13	FDA.
14	DR. BASTA: We will do so, thank you very
15	much. With that, albeit a brief presentation, this is
16	the data from the pivotal clinical trial which
17	supports the nasolabial fold indication. Again, this
18	study was conducted under and IDE that was reviewed
19	with the FDA, is consistent with the study design of
20	
20	other materials that have been tested and reviewed by
21	other materials that have been tested and reviewed by this panel for nasolabial fold indications and the

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in terms of safety and effectiveness but obviously, we will wait for the panel discussion on that topic, thank you.

CHAIRMAN LoCICERO: Okay, it's time for the panel to ask questions of the sponsor concerning the presentation on this indication. Dr. Newberger?

7 MEMBER NEWBERGER: I have a question about the control used. Under your mode of administration, 8 9 you write that tracking method is used with both the 10 control and Radiesse. Those of us who do a lot of injection don't use the tracking method for CosmoPlast 11 and if you go to the package insert and the CosmoPlast 12 13 instructions from Allergan (phonetic) you see that the 14 serial puncture technique is used. So I don't know that your control is being used in an optimal method 15 16 comparable because certainly, that's when do we 17 CosmoPlast injections for nasolabial fold correction in our office, we have far better results than you 18 19 So would you comment on the adequacy of show here. 20 the control and why you used a technique that is 21 different than the manufacturer of the control 22 recommends?

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1 DR. BASS: I'm a little at a loss. Ι 2 can't really speak to the comment in the package material you received. At my site and to the best of 3 4 my knowledge at the other sites, the serial puncture 5 technique was employed when placing the CosmoPlast control and this is in line with the -- again, the 6 7 package insert instructions for use and the customary way that we clinically use this material. 8 9 By the same token, as you saw in the 10 multiple control side optimal correction pictures that I presented, whatever technique may have been used, it 11 certainly accomplished a qood optimal consistent 12 13 correction with the CosmoPlast material. So we did 14 not have trouble in any patients that I'm aware of achieving the optimal correction end point on the 15 16 CosmoPlast side. 17 MEMBER NEWBERGER: So you are saying then that the packet that we received which says under 18 19 Section 2.4 Mode of Administration, the method of 20 injection was tracking for both products is not 21 correct? I am not familiar with the 22 DR. BASS: **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 terminology tracking at all and I can tell you that --Threading. 2 MEMBER NEWBERGER: DR. BASS: Okay, the technique according 3 4 to the protocol, as I understood it, was that each 5 material injected according be to the customary the physician which was threading for 6 practice of 7 Radiesse in all cases and was left to the discretion of the investigator on the CosmoPlast side. It's my 8 understanding that it was serial puncture in all cases 9 10 and I know for certain it was at my site. CHAIRMAN LoCICERO: Does this study have a 11 medical monitor? 12 13 DR. BASS: Yes. 14 CHAIRMAN LOCICERO: Can we maybe get some comments concerning this? 15 16 DR. BASTA: The study was monitored. I've 17 asked our clinical group to review the history the instructions provided 18 regarding to the 19 investigators and we will get you a response to that 20 but certainly the use of CosmoPlast consistent with 21 its instructions for use was the intent of the protocol determine exactly what 22 and we will was **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS

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1 communicated and what procedures were used. I will 2 have that data for you in a few moments. Other additional --CHAIRMAN LOCICERO: 3 4 Dr. Miller? MEMBER MILLER: First of all, 5 Ι congratulate you on a really nicely done study. 6 And I 7 want to ask about the condition of the tissue at six months and if you would go back and reinject which 8 9 often these patients, they want have their to 10 correction restored, what's it like to go back and reinject at six months or longer? I mean, earlier it 11 was mentioned that there was -- it's difficult to 12 13 reinject where the previous material was placed. It is similar in the application you're using it in? 14 That's 15 DR. BASS: actually а very 16 interesting issue. In most of these patients, at the six-month touch-up injection, the tissues felt similar 17 to their baseline feel. Of course, much smaller 18 19 volumes of material are being used here compared to 20 the study we saw this morning. Some patients did have a slightly firmer feel on injection and I want to draw 21 distinction between the 22 а feel to the injector

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1 advancing a needle through subcutaneous tissues and feel to the physician examining a patient 2 the by palpation and the patient feeling their tissues. 3 And 4 so firmness at that interval was not observed and on physical exam, but in some patients, a slightly firmer 5 feel was perceived on needle injection during the 6 7 touch-up injection. This did not hamper injection or returning that side to optimal correction. 8

9 MEMBER MILLER: And I'm curious if you 10 would have any -- I mean, you can take a large part of discussion this morning 11 the about some of the uncertainties about this material and just 12 cut and 13 paste it into this afternoon in some ways. Having listened to some of the discussion this morning, do 14 you have any comment about some of the issues raised 15 16 that bear upon this application that come to your mind 17 without reviewing them all?

DR. BASS: Well, overall, I feel this 18 19 study is fundamentally different because it does have 20 the virtue of a control material injected in the same patients, in the same site albeit on the contra-21 22 lateral side, а material that's been around for

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decades and is widely used and has a very well-defined safety profile, and the profile of the Radiesse product, its performance at least till the end point of this study, 12 months, was in every way comparable except for a little more edema and a little more ecchymosis.

7 In addition, personally, as а plastic surgeon, having trained at a place where we used a 8 fair amount of hydroxyl appetite in reconstructive 9 10 facial applications, including granules, I just recall always seeing granules in the soft tissue at the 11 conclusion of the procedure, after we tamped it into a 12 13 bone defect and the decades of that use without a late 14 untoward sequella is an added reassurance for me personally as a physician. 15

MEMBER MILLER: Thank you.

CHAIRMAN LOCICERO: Dr. Li?

MEMBER LI: Can you -- you've described comparing the control against Radiesse by the number of injections. Is the amount of material the same in the two groups? In other words, is one injection the same amount of the active material in both the control

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1 group and the Radiesse?

2	DR. BASS: I mean, overall, the we're
3	looking to see if we have the data spread out per
4	injection, how much was placed per injection, but the
5	total volume injected to achieve optimal correction,
6	whether it was done in one injection or three, was on
7	average, half as much on the Radiesse side as it was
8	on the CosmoPlast side, an average of 1.2 on the
9	Radiesse side, an average of 2.4 milliliters on the
10	CosmoPlast see and we're trying to see if we can show
11	how that was distributed by injection. And again, on
12	an average fewer injections to get to the optimal end
13	point on the Radiesse side.
14	MEMBER LI: Can you describe compare and
15	control again?
16	DR. BASS: Right, so you can see here that
17	as Injection 1, the mean volume on the Radiesse side
18	was 1.0 ml and 1.7 ml on the CosmoPlast control side.
19	At Injection 2, the mean injection on the Radiesse
20	side, should a patient require a second injection was
21	.4 ml and .9 on the control side. And at four weeks,
22	the small number of patients that landed up there was

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1 .5 and .7 ml.

2	MEMBER LI: Thank you. Let me rephrase my
3	question. Per milliliter of each material, is there
4	the same amount of say collagen versus hydroxy
5	appetite, in other words, milliliter per milliliter
6	for each one, am I injecting the same amount of
7	collagen as hydroxy appetite?
8	DR. BASS: Well, probably not. I don't
9	recall the exact amount of collagen in the material.
10	Maybe Dr. Carruthers will help me with that. Thirty
11	percent of the Radiesse material is hydroxy appetite
12	and the remainder is the gel carrier.
13	MEMBER LI: That's 30 percent by weight or
14	by volume?
15	DR. BASS: By volume, 30 percent by
16	volume.
17	MEMBER LI: Okay, the density is so large,
18	though that the amount can be quite different.
19	DR. BASS: I mean, again, it's
20	MEMBER LI: I'm just trying to get a feel
21	for if how comparable your control is to the
22	Radiesse versus the active ingredient. In other
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words, to tell me twice its volume is not very descriptive if there's half as much material and it's the same amount then, right?

4 DR. BASS: Well, it's descriptive in the I mean, it's -- there are two -- well, 5 following way. I understand what you're saying. That's 6 а very 7 interesting point. I think there are two aspects to One aspect is th clinician/patient aspect. 8 it. The distinction is important because if you are paying for 9 10 the material or you're receiving the material, in multiple injections potentially, that has an effect on 11 you in dollars and in time and inconvenience. 12 From 13 the point of view of the study, it's significant 14 because even if -- even that being true, what you're saying, a lot of these patients came in and had one 15 16 Radiesse injection and they got injected again and again and again with CosmoPlast to get them to an 17 optimal correction and so even if the materials are 18 19 not comparable by weight or amount, they had the 20 opportunity to get enough amount to reach an optimal end point and that series of eight sequential patients 21 all of whom got a comparable correction on their 22

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1	control side and Radiesse side supports that.
2	MEMBER LI: No, I understand why you did
3	it. I'm just trying I'm struggling with trying to
4	get essentially a dose response indicator of some
5	sort. So I understand how you did it is completely
6	logical. I'm just trying to get a I'm struggling
7	again for kind of mechanistic information.
8	DR. BASS: The dose issue is funny because
9	the clinical condition being treated varies in
10	severity widely from patient to patient. As you saw,
11	on the Lemperle Rating Scale, you could be a one or a
12	five. Now in the study they were all three and four
13	but in the real world, patients walking in are
14	anywhere from two, because a one really wouldn't need
15	treatment, anywhere from two to five. And so the
16	amount that people need varies, depending on the
17	severity of their pathology and that's a customary
18	this is now something that many clinicians are doing,
19	that many clinicians have experience with by virtue of
20	their residency training, and making the aesthetic
21	judgments about how much is enough is part and parcel
22	of that training that we received for years and years

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and years when were developing our skills.

MEMBER LI: And just a quick question; you 2 described initially this was a double blinded study. 3 4 Which were the parties that were double blinded, because certainly the physician doing the injection 5 knows what he's doing because they're different 6 7 procedures, so when you say it's double blinded what exactly are you referring to? 8 9 DR. BASTA: I'm sorry, have Ι may 10 misspoken. That comes from my old pharmaceutical In this context the evaluators were blinded so 11 days. the study was done in a manner in which all of the 12 13 primary end point evaluations were conducted by blinded evaluators, but the double blind nomenclature 14 is an unfortunate slip that comes from having done 15 16 pharmaceutical studies for many years. 17 MEMBER LI: Thank you. CHAIRMAN LOCICERO: Dr. Blumenstein. 18 19 MEMBER BLUMENSTEIN: So I want to make an 20 assertion and then hear a defense from you folks. Ι claim that this study is fundamentally flawed because 21 optimal for each side could be biased because the 22 **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W.

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1 clinician delivering the intervention is not biased. In other words, the -- what's defined as optimal may 2 not be the same on both sides of the face and it could 3 4 be that clinician being biased would have left the patient in the control arm little less optimal than 5 the patient in the investigation. Control side would 6 7 have left the patient in less than -- a slightly less optimal condition than the patient the 8 in investigational side. 9

10 DR. BASS: Let me comment from an operational point of view again as a clinician and 11 then I'll let the company people respond from more of 12 13 a structural view. It is true that the investigator is determining the end point of optimum and there is a 14 little leeway there because optimum correction is not 15 16 It's not you look 20 years old. total correction. 17 It's the best we think injectable filler can reasonably correct the fold. 18 And so there is a 19 being said, again, judgment there. That in the 20 multiple examples we showed, I think the degree of 21 correction obtained was arguably to an approximation 22 equivalent on the two sides not in many of the

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examples we showed but essentially in all of them. And the response at three and six months was so divergent for the very, very close correction that I think that factors out. That's my clinical perspective. Let me let the company offer theirs.

DR. BASTA: Several insights 6 may be 7 helpful in regard to that guestion. One is that the phenomenon that you're describing is 8 common to multiple studies in the nasolabial fold indication. 9 10 That treatment to optimal correction as determined by the investigator is a common standard of practice in 11 study designs in this area. There are, in fact, three 12 13 ways that we considered designing this study that would have addressed that potential point as well but 14 we believe that the way that we designed it is the 15 16 most rigorous of the paths that is available and 17 practically reasonable.

The three alternatives that we considered would have been a live evaluator assessment, but that has inherent in it all of the limitations of the fact that the live evaluator will see a patient and see a nasolabial fold that's responsive on one side and that

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1 has not improved on the other side and so you have unblinding risk over the course of the study. 2 So when we considered the feedback from this panel on prior 3 4 clinical study designs, one of the criticisms that was offered was if you use a live evaluator, though they 5 blinded as to treatment side there's 6 may be а 7 significant risk of unblinding if there's a symmetry that gets created and one of the products is longer 8 9 lasting. So we dismiss that as a likely path for 10 creating the best potential study design.

There is a second study design where you 11 could have a blinded live evaluator do ratings for 12 13 enrollment and for optimal determination and then have 14 blinded evaluators but then you end up with potential 15 discrepancies between the of the live scores 16 evaluators and the blinded evaluators. We considered 17 that option and chose to go with the pure blinded evaluator option. 18 That creates a logistics just 19 physically, in terms of taking the pictures, sending 20 them to the blinded evaluators that would have made it difficult for them to rate optimal and determine 21 whether or not injection would need to be performed 22

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because the patients would have had to come in repeatedly, come in for a picture and then come in for injection, then come in for a picture, then come in for injection and so it becomes unacceptable to patients to implement that kind of a study design.

The best, most appropriate study design 6 7 that we considered after careful and thorough work to evaluate each of these options and evaluate each of 8 9 these options with our reviewers at FDA to look at 10 what the best practices were in the industry, was one investigators 11 where the treating would make the clinical assessment to when they had achieved 12 as 13 optimal injection for these patients with the 14 observation of the inherent limitation, Dr. 15 Blumenstein, that you've observed that they are, in 16 fact, knowledgeable about which treatment is provided 17 but as clinicians, we expect that they are providing the best possible care for the patients and therefore, 18 19 really are treating the patients to optimal.

The other evidence that would point to the fact that the bias that you might be concerned about is not evident in this study is that the collagen

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1 folds actually receive more injections and more 2 So there was clearly a diligent effort to material. try to bring those folds up to optimal correction and 3 4 if anything, bias to more treatment on that side rather than on the Radiesse side but I don't believe 5 there was a bias. I believe that these clinicians are 6 7 treating these patients with the intent of achieving the best possible outcome for the patients and that 8 most responsible clinical approach with a 9 was the 10 rigorous independent blinding structure that we could create, but your point is well-taken. 11 MEMBER BLUMENSTEIN: Do you -- I gather 12 13

13 from looking at the schema and so forth, that you did 14 not take photographs of the optimal correction when it 15 was judged that the correction was optimal, the two 16 week after last injection visit.

DR. BASTA: Yes, we did take photographs. Those were the photographs that Dr. Bass presented. They were not rated by the blinded evaluators because it was not an effectiveness time point but they were, in fact, taken and as we showed in the presentation -we'd be happy to bring some of those up. As we showed

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1 in the presentation, we actually showed vou the 2 baseline photograph, the photograph at the optimal time point which is two weeks after the last injection 3 4 when the investigator deemed that the patient had reached optimal correction and no further treatment 5 was required and then at the three-month and six-month 6 7 time points. We can go back through some of those as well but that is what Dr. Bass was describing for you 8 was showing you those pictures. 9 10 MEMBER BLUMENSTEIN: Okay, but those weren't included in this book. 11 DR. BASTA: I believe that's right. 12 Thev 13 were not included in that book. They were introduced 14 into the presentation. They were included in the presentation previously submitted to FDA. 15 We had 16 thought that that would be circulated to the panel but 17 they were included in response to the FDA's question that we know the panel will be asked to address about 18 19 the collagen effectiveness issue. We believe that it 20 was an important question to answer, did the collagen side actually get treated effectively and did it get 21 treated to optimal correction and the best evidence 22

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1 for that was to go through a series of patients in sequential order, not selected for which ones had the 2 best correction, but simply go through a sequence of 3 4 patients and we would be happy to go through that 5 again. MEMBER BLUMENSTEIN: Are they on the CD? 6 7 DR. BASTA: My colleagues are nodding in the affirmative, that all of the photographs are on 8 the CD. 9 10 MEMBER BLUMENSTEIN: Thank you. CHAIRMAN LoCICERO: 11 Are there other questions? Yes, Dr. Olding. 12 13 MEMBER OLDING: I just have a question 14 about the demographics and the use of the patients 15 from the previous study and your conclusions regarding 16 the use of this product in the nasolabial fold in 17 persons of color. DR. BASTA: Could we have the question 18 19 repeated? I'm sorry. 20 CHAIRMAN LoCICERO: Yes, we'd like а comment about the patients of color and the response. 21 22 DR. BASTA: And I'm sorry, what is the **NEAL R. GROSS** COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

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question regarding persons of color?

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2	MEMBER OLDING: Well, you presented or Dr.
3	Bass presented in his list of demographics both in
4	material from the last study and this one regarding
5	African Americans. Is it your supposition in
6	presenting that data that you can utilize the patients
7	from the first study to make a conclusion or draw a
8	conclusion that this is also safe in persons of color?
9	DR. BASTA: Well, I think that's actually
10	a clinical question. Dr. Bass, do you wish to take
11	that question? I'll allow him as a clinician to
12	assist with a clinical judgment on that.
13	DR. BASS: I don't have the detail of the
14	question again, I apologize.
15	CHAIRMAN LOCICERO: Okay, would you
16	recommend this in a Black person is what we've boiled
17	it down to?
18	MEMBER OLDING: That's not quite it. The
19	you can you draw conclusions about the
20	population of patients of color regarding the use of
21	the material in that population correcting nasolabial
22	folds? Are you drawing upon the previous study's
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1 results to make any conclusions?

2	DR. BASS: I think the numbers in the
3	nasolabial fold study by itself were small. So
4	effectiveness judgments really can only be mated to
5	the nasolabial study. I think safety judgments spread
6	across really the body of patients of non-Caucasian
7	patients in both studies and is quite a sizeable
8	number of patients and was very consistent in its
9	outcome, that there were no adverse effects and in
10	particular the adverse effects we'd be most concerned
11	with keloid formation and hyperpigmentation were just
12	not present in any of the patients in either of the
13	studies
14	MEMBER OLDING: What about the fact
15	DR. BASS: in any of the patients of
16	color.
17	MEMBER OLDING: What about the fact that
18	in the that the population of African Americans for
19	example, that were involved in the first study were
20	immuno suppressed? Do you think that makes a
21	difference as far as the response to the injectable?
22	DR. BASS: Do you have the CD4 counts?
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1	They were patients who have an immune disorder. The
2	question is were they immuno suppressed in fact or not
3	at the time of the study. Now, there is some CD4
4	count data
5	MEMBER OLDING: Greater than 250, I think,
6	is that right?
7	DR. BASS: Well, that was the study-wide
8	criteria but I think they're trying to bring up some
9	additional data that in that cohort of patients there
10	was something approximating a normal count which would
11	allow us to conclude that there was no special reason
12	to think they would under-respond based on that
13	additional laboratory data.
14	So here these are patients now with more
15	than 500 on the CD4 count, so only patients with
16	really a higher count level and they are in the
17	lipoatrophy side of the study in terms of
18	complications and adverse events both at 0-6 months
19	and 6 to 12 months. Basically there was no incidents.
20	It's not on the slide because there wasn't any of
21	scarring, keloid formation, or hyper-pigmentation.
22	And so drawing on that experience in
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conjunction with the 13 odd, approximately 10 percent non-Caucasian patients in the focus nasolabial study, I think that's a significant body of safety data to consider.

MEMBER OLDING: Didn't your study -- I'm not sure why you chose for this slide the CD4 count greater than 500 if you could get into your study with CD4 count greater than 250. I don't understand the validity of this slide if you allow people in it who are 250.

We actually have looked at the 11 DR. BASTA: segment at patients between 250 and 500 12 data and 13 patients greater than 500. The reason for presenting the data in the span is to address precisely the 14 15 question that you're asking which is, is there 16 sufficient data -- if I can paraphrase, is there sufficient data from the lipoatrophy study to indicate 17 whether or not the product is safe in persons of color 18 19 without HIV infection and any associated immune 20 dysfunction that might occur, if that's а fair paraphrasing of your question. 21

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One of the markers in HIV infection that

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1 is used as a surrogate for immune health is CD4 count and, in fact, there's a significant body of literature 2 associating CD4 counts greater than 500 with virtually 3 4 normal immune function. And so if someone has a CD4 count range above 500 that is in the normal range, 5 they have a competent immune system, we believe that 6 therefore, that population represents a population 7 that would be instructive for assessment of whether or 8 not safety in normal individuals that are not HIV 9 10 infected would be appropriate. did attempt in the nasolabial fold 11 We

clinical trial to specifically recruit persons 12 of 13 color at each of the clinical sites. We placed advertising for persons of color in response to some 14 of the questions that were raised by this panel in 15 16 prior reviews. We simply had a low -- we actually had 17 a moderate number of individuals present but then a success rate through the screening for 18 low those 19 patients to qualify with Lemperle Rating Scale three 20 or four folds and qualify for the study.

21 And so we only ended up with a very small 22 number of patients in the nasolabial fold study

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despite specific recruiting for persons of color in advertising locations which would recruit that population and with ads targeted to that population.

## CHAIRMAN LOCICERO: Dr. Newberger?

MEMBER NEWBERGER: Т 5 have one other question about the slide that's up, please. 6 It seems 7 to me that those people with HIV associated lipoatrophy have a significant difference in terms of erythema as a 8 9 side effect compared to those with nasolabial fold 10 treatment. So could you comment on perhaps the impact that immune status might have on that? 11

Well, the numbers in absolute 12 DR. BASS: 13 terms look somewhat different but if you look at the P 14 value, you can see that there's not statistical significance to that difference. 15 Recall also that 16 these are patients having on average almost -- having 17 averaqe almost eight times as much material on injected. So the fact that someone getting eight times 18 19 as many needle sticks has somewhat more ecchymosis 20 erythema, and they have less erythema.

21 CHAIRMAN LOCICERO: There are two cells we 22 need to look at. The first is erythema in the 0 to 6

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1	month group. That's significant for more problems in
2	the nasolabial fold group. In the 6 to 12 month period
3	pruritus is also a significant difference between the
4	two groups, how do you explain that?
5	DR. BASS: Right, the pruritus difference
6	is sort of a wash because if you look if you look in
7	well
8	CHAIRMAN LoCICERO: Why don't you take
9	some time to analyze that and answer us later. Do you
10	have the answer to the first question you didn't have
11	an answer to?
12	DR. BASTA: If we could take that off the
12 13	DR. BASTA: If we could take that off the screen and Dr. Bass could review it. We will need to
13	screen and Dr. Bass could review it. We will need to
13 14	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device
13 14 15	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device technique which they used. The collagen instructions
13 14 15 16	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device technique which they used. The collagen instructions for use which we've reviewed are silent as to injection
13 14 15 16 17	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device technique which they used. The collagen instructions for use which we've reviewed are silent as to injection technique. So the instructions for use for collagen to
13 14 15 16 17 18	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device technique which they used. The collagen instructions for use which we've reviewed are silent as to injection technique. So the instructions for use for collagen to our knowledge did not dictate what the precise
13 14 15 16 17 18 19	screen and Dr. Bass could review it. We will need to confirm with each of the investigators, the device technique which they used. The collagen instructions for use which we've reviewed are silent as to injection technique. So the instructions for use for collagen to our knowledge did not dictate what the precise mechanism what the precise technique for placement

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1	was for collagen in order to
2	MEMBER NEWBERGER: Excuse me, do you mean
3	that the collagen material doesn't give instructions
4	for injection?
5	DR. BASTA: As to whether it should be a
6	serial puncture or a linear threading, I believe that
7	the yeah, if
8	MEMBER NEWBERGER: I have it right here on
9	my computer, the technique.
10	DR. BASTA: Dr. Newberger, I don't know
11	what it is that you're looking at currently.
12	MEMBER BLUMENSTEIN: Let me just read a
13	sentence here. It says, "The method of injection will
14	be tracking for both products".
15	MEMBER NEWBERGER: It looks like it's on a
16	protocol.
17	MEMBER BLUMENSTEIN: No, that's correct,
18	that's in our protocol but as to what is in the
19	collagen instructions for use, Dr. Newberger, you
20	indicated that you believe that that is not a correct
21	instruction for the injection of collagen. We had
22	worked with the FDA to determine that the product would
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be used in a manner consistent with the instructions
 for use for collagen.

MEMBER NEWBERGER: This is from the corporation that makes CosmoPlast and it says, Serial puncture technique recommended for nasolabial lines or furrows." This is their material.

7 DR. BASTA: Is that in the package8 instructions for use?

I can't tell you if 9 MEMBER NEWBERGER: 10 it's in the current package now but it's one of their publications for approved 11 - their recommended different techniques for from 12 areas Inamed 13 Corporation.

14 MEMBER BLUMENSTEIN: Well, but I think 15 this is relevant. It says in the protocol it's 16 tracking for both.

17 CHAIRMAN LOCICERO: I think it would be 18 very important if this panel had the information 19 concerning those investigators and the technique that 20 was used. Is there some way that you can get that 21 today?

DR. BASTA: I will ask someone to see if

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1 they can contact each of the clinical investigators to find out if there was anything different from what has 2 been described in the material that has been provided. 3 4 The methodology was, in fact, reviewed with the agency and is consistent with the instructions for use but I 5 do appreciate the fact that something different might 6 7 be on their website. CHAIRMAN LoCICERO: Ιt miqht be 8

appropriate to take our break now. We'll come back at 10 five to 4:00.

(A brief recess was taken.)

CHAIRMAN LOCICERO: We're ready to begin 12 13 We have two questions on the floor that the aqain. 14 sponsors need to answer. Before that, Dr. Newberger 15 has a comment.

16 MEMBER NEWBERGER: I have the source for 17 the information on the recommended serial puncture technique for nasolabial lines or furrows and that is a 18 19 document that comes from the Inamed representative who 20 qoes to each office to provide Zyplast, Zyderm, 21 CosmoPlast and CosmoDerm, so that's the source. It's not, per se, in the package insert. 22 It's additional

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information that's given by the representative, the
 sales rep to the purchasers.

DR. BASTA: Newberger, 3 Thank you, Dr. 4 that's helpful context. We have, during the break, 5 addressed the question which you had asked. We have contacted each of the investigators in the study. 6 7 Three of the investigators and all of the - investigators performed these treatments consistent 8 with the instructions for use for the material which 9 10 was -- and the material, in fact, comes packaged with two needles. The CosmoPlast material comes with both a 11 short needle and a longer needle; the short needle 12 13 appropriate for the serial puncture techniques, the 14 longer needle for the tracking or the threading techniques. 15

16 Three of the investigators indicated to us that they used a threading technique. 17 One of the investigators indicated that he used a serial puncture 18 19 technique, both of which are techniques that are 20 appropriate for the material. They used the needles which were provided in the material. 21 We have also reviewed the Inamed instructions for use that existed 22

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