

1 patients with a response usually that is measured by  
2 decreased by immunosuppression in approximately  
3 60 percent of patients. It appears to be well  
4 tolerated. We have also done ACTH stim. tests. It does  
5 blunt the adrenal response, but it doesn't have the  
6 same systemic effects. I don't know if this is due to  
7 the first pass effect on the liver, but these patients  
8 do not become Cushingoid, do not develop the same  
9 hypertensive, et cetera, side-effects that patients  
10 who, for example, are on metrol or prednisone. It is the  
11 only drug that has been added up  
12 front that appears to be fairly safe. Studies using  
13 such drugs as ATG have shown actually inferior  
14 outcomes when they add the steroids up front. This  
15 drug doesn't seem to cause that. Again, we used it  
16 primarily for further-  
17 stage GVHD patients, but it appears to be fairly safe.  
18 We think it is useful therapy for both acute and  
19 chronic GVHD.

20 That's my talk. Thank you.

21 MS. CLIFFORD: Thank you.

22 CHAIRPERSON HUSSAIN: Thank you. That

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1 concludes the public hearing portion.

2 MR. KANZER: Can I make a statement?

3 CHAIRPERSON HUSSAIN: Are you registered,  
4 sir, to speak?

5 MR. KANZER: Can I speak?

6 CHAIRPERSON HUSSAIN: Were you registered to  
7 speak, sir?

8 MR. KANZER: Yeah. I would just like to  
9 make a statement.

10 CHAIRPERSON HUSSAIN: I don't believe you  
11 have been registered. Unfortunately, we have --

12 MR. KANZER: I am, Dr. Hussain, from  
13 Ann Arbor. I do know James Ferrara.

14 CHAIRPERSON HUSSAIN: That doesn't matter,  
15 sir.

16 MR. KANZER: Do you know James Ferrara?

17 CHAIRPERSON HUSSAIN: I know Dr. Ferrara.

18 MR. KANZER: You know, Dr. Ferrara. When  
19 was the last time you spoke to James Ferrara?

20 CHAIRPERSON HUSSAIN: Sir, please sit down. We  
21 need to get going.

22 MR. KANZER: No. Actually, I would like to

1 say something. Okay?

2 CHAIRPERSON HUSSAIN: Can we turn off the  
3 microphone?

4 MS. CLIFFORD: Can we cut the mike, please?

5 CHAIRPERSON HUSSAIN: Can we turn off the  
6 microphone, please?

7 (Pause in the proceedings.)

8 MR. KANZER: I have a question --

9 (Simultaneous discussion.)

10 CHAIRPERSON HUSSAIN: Sir, sir, excuse me.  
11 Like everybody else, if you want to speak, at least  
12 identify yourself and you're going to have two minutes.

13 MR. KANZER: My name is Steve Kanzer, and I'm  
14 from Ann Arbor Michigan. I work with the University of  
15 Michigan, okay. I am familiar with your background,  
16 okay, and your association with James Ferrara, okay.  
17 Now, you have not disclosed that, have you, in your  
18 disclosure as responsible --

19 CHAIRPERSON HUSSAIN: Sir, if you have  
20 something useful to say, please just say it.

21 MR. KANZER: Yes. Have you disclosed your  
22 conflict of interest at the University of Michigan with

1 James Ferrara?

2 CHAIRPERSON HUSSAIN: What is the conflict?

3 MR. KANZER: What's the conflict?

4 CHAIRPERSON HUSSAIN: Yes. What is the  
5 conflict, sir?

6 MR. KANZER: What conflicts have you  
7 disclosed?

8 CHAIRPERSON HUSSAIN: Who are you, sir? What  
9 gives you the right to stand up here and question me?

10 MR. KANZER: Well, what's your problem? When  
11 was the last time you spoke to James Ferrara? When was  
12 the last time you spoke to James Ferrara?

13 CHAIRPERSON HUSSAIN: When was the last time  
14 you spoke to anybody?

15 MR. KANZER: Okay. Yes, I'm sure you've  
16 spoken with Dr. Ferrara.

17 (Pause in the proceedings.)

18 MR. KANZER: When was the last time you spoke  
19 to James Ferrara?

20 CHAIRPERSON HUSSAIN: Thank you very much.  
21 We're going to proceed with our discussions.

22 MR. KANZER: (Shouting) Can you answer the

1 question? Can you answer the question?

2 (No verbal response.)

3 MR. KANZER: I guess you don't have to feel  
4 like you have to answer the question. No, it doesn't  
5 matter. Can you answer the question? When was the last  
6 time you spoke to James Ferrara?

7 CHAIRPERSON HUSSAIN: Months ago, sir, and  
8 nothing to do with this. He is a colleague of mine and  
9 I do not --

10 MR. KANZER: No, you're a liar.

11 CHAIRPERSON HUSSAIN: Sir, I'm not a liar, and  
12 you have no right to speak to me that way. Okay?

13 MR. KANZER: Yes, I do.

14 CHAIRPERSON HUSSAIN: No, sir, you don't.

15 MR. KANZER: (Shouting) You're killing  
16 patients. You kill patients. You sit here and you kill  
17 patients.

18 (Pause in the proceedings.)

19 MR. KANZER: (Shouting) You're a scam. All  
20 you people are. You have blood on your hands.

21 MS. CLIFFORD: We have called security. They  
22 are on their way up.

1 MR. KANZER: Yes, right.

2 MS. CLIFFORD: Thank you. If you would, just  
3 leave

4 MR. KANZER: Yeah, yeah, right, right, sure.

5 MS. CLIFFORD: Thank you.

6 (Pause in the proceedings.)

7 CHAIRPERSON HUSSAIN: Okay. I want to  
8 apologize to the Committee on this disturbance.

9 MR. KANZER: (Shouting) Don't apologize.

10 CHAIRPERSON HUSSAIN: We are going to proceed  
11 with our agenda.

12 Can I have please the questions to the  
13 Committee up?

14 QUESTIONS TO THE ODAC AND ODAC DISCUSSION

15 CHAIRPERSON HUSSAIN: We normally don't get  
16 this kind of excitement up there. I've got to go back  
17 and -- no, no, does the audience need a break?

18 (No verbal response.)

19 CHAIRPERSON HUSSAIN: No. We're going to  
20 proceed.

21 The question is in relationship with the agent  
22 that is before us is specifically based on the data

1 submitted, has substantial evidence of efficacy been  
2 demonstrated for OrBec in the proposed patient  
3 population?

4 Before we discuss the question, I'm going to  
5 get back with the FDA requesting, again, clarification  
6 for the record because we have new members on the  
7 Committee with regard to this magical word of  
8 "substantial evidence."

9 DR. JUSTICE: Okay. I will just repeat what  
10 was said this morning, that in general substantial  
11 evidence requires at least two adequate and well-  
12 controlled studies, each convincing on its own to  
13 establish effectiveness. The requirement for more than  
14 one trial reflects the need for independent  
15 substantiation of the experimental results.

16 Substantial evidence also may be provided by  
17 the results of a single, adequate and well-controlled  
18 study when a single, multicenter study of excellent  
19 design provides highly reliable and statistically  
20 persuasive evidence of an important clinical benefit  
21 such as an effect on survival such that a confirmatory  
22 study is not ethical.

1           In all cases, it is presumed that the single  
2 study has been appropriately designed that the  
3 possibility of bias due to baseline imbalance,  
4 unblinding, post-hoc changes in the analysis or other  
5 factors as judged to be minimal and that the results  
6 reflect a clear prior hypothesis documented in the  
7 protocol.

8           CHAIRPERSON HUSSAIN: Okay. Thank you.

9           Any discussion within the Committee with  
10 regard to the first question?

11           (No verbal response.)

12           CHAIRPERSON HUSSAIN: Any comments that  
13 anybody wants to make? Yes?

14           DR. FLATAU: I guess I'm troubled. I mean, I  
15 think it's relatively clear that the scientific evidence  
16 is not where we would like it to be.

17           I think if you look at it from what is going  
18 to benefit patients, which it seems to me is the  
19 important criteria, and it looks like there is probably  
20 some efficacy with this drug.

21           There aren't really any major safety concerns.

22           I think to do another trial to have scientific evidence



1 is going to postpone this drug for three, four, five  
2 years at least. I think that from a patient point of  
3 view that is not the right thing for patients.

4 It is better to get this drug that probably  
5 has some efficacy, we think it has some efficacy, we  
6 don't have a high degree of confidence, but it probably  
7 has some efficacy, and use it.

8 I think the other thing is that some patients  
9 will take this drug if it's approved and they won't be  
10 helped or they will fail treatment. I think they won't  
11 be that much worse off, and they will go on to whatever  
12 other drugs are available to try and treat GVHD, except  
13 that they won't be getting BP compounded in corn oil.

14 I think on balance, from a patient point of  
15 view, that approving this drug makes more sense than not  
16 approving it at this time.

17 CHAIRPERSON HUSSAIN: Thank you.

18 Dr. Perry.

19 DR. PERRY: I know your story, a little of  
20 your story, and I know our position and I think I  
21 understand that. I think there is this, the issue  
22 before us, but there is also a bigger issue. If we

1 lower the bar for this drug, then we lower the bar for  
2 every other drug.

3 We, "we," meaning the scientific community as  
4 a whole, will never get the answers that we need. I  
5 think the only way to get the answer for this drug is to  
6 do a proper and appropriately designed trial.

7 There are thousands of transplant patients  
8 every year. I think to do the appropriate trial is a  
9 whole lot simpler than it would be in some of the other  
10 circumstances we talked about in the last several years  
11 I've been on the Committee. I don't think the  
12 manufacturers have proved the point. While it may be  
13 helpful in some, it hasn't proved its efficacy overall.  
14 I think we simply need a better trial, and so I'm not  
15 going to vote to approve it.

16 DR. PAZDUR: I would just like to reiterate  
17 that there are alternative mechanisms to get drugs out  
18 to people while they are further being studied. One of  
19 them would be a treatment IND.

20 It actually allows the Sponsor even to recoup  
21 their costs for manufacturing the drug and for some  
22 developmental costs of the drug. That can be a very

1 large treatment, single-arm trial.

2 Here again, one of the questions that I have,  
3 if that would be ongoing, would people even consider  
4 doing another trial? Would another trial be feasible to  
5 do? That's another issue.

6 CHAIRPERSON HUSSAIN: Is this an issue you  
7 want us to discuss now, or this is an issue that we want  
8 to discuss after the vote?

9 DR. PAZDUR: Probably after the vote or it can  
10 be discussed during the vote.

11 (General laughter.)

12 DR. PAZDUR: It's really going to be part and  
13 parcel of a decision here.

14 CHAIRPERSON HUSSAIN: Yes. Just a point of  
15 clarification. If someone gets an IND for a specific  
16 treatment, who pays for the cost of the drug?

17 DR. PAZDUR: Usually, the Sponsor would assume  
18 the cost of that. Under the treatment IND mechanism,  
19 however, which is a special type of expanded access  
20 program, there can be some cost recovery on the part of  
21 the Sponsor. We would entertain in a situation such as  
22 this that type of program.

1                   CHAIRPERSON HUSSAIN: Is the Sponsor planning,  
2 or has any studies in progress?

3                   MR. RODELL: There are no studies currently in  
4 progress. The possibility of other studies has been  
5 discussed, but I would like to ask Dr. McDonald to talk  
6 about the relative likelihood of being able to repeat  
7 any of the studies that have been done so far.

8                   DR. McDONALD: I think there are two, perhaps  
9 three issues. One is the ethical issue. I'm not sure  
10 my IRB faced with published literature of efficacy in  
11 treating GVH and the survival benefit would approve a  
12 placebo-controlled trial entering these same kind of  
13 patients.

14                   The practical issue is I would have to write a  
15 consent form that explains this to patients. I'm not  
16 sure accrual is practical when I have to put into my  
17 consent form what's in the literature. We have three  
18 publications in the literature, the Phase I, the  
19 randomized Phase II, and this week in blood the  
20 randomized pivotal trial.

21                   I think this is perhaps open to discussion,  
22 but I don't think a placebo-controlled trial can be done

1 in this group of patients for ethical and practical  
2 reasons.

3 CHAIRPERSON HUSSAIN: Could you not consider  
4 doing a trial, not placebo-controlled but with  
5 equivalent doses of steroids to make the point that your  
6 agent has a superior profile with regard to infections,  
7 complications of steroids, and things of that sort? It  
8 doesn't have to be necessarily a survival-driven trial  
9 but an efficacy trial?

10 DR. McDONALD: I think that is a  
11 consideration, but actually there are some data that  
12 bears on the question. If you look at the placebo arm  
13 of 875, you will discover that 41 percent of people  
14 required only 10 days of prednisone. If you look at the  
15 placebo arm of the pivotal trial, 55 percent required  
16 only 10 days of prednisone.

17 I think it is very difficult to argue that a  
18 high-dose prednisone regiment would benefit any of those  
19 patients who required only 10 days of prednisone. I  
20 think the same ethical issues exist in doing a very  
21 high-dose prednisone versus this approach.

22 We have already proved, I think, that the

1 minimum prednisone approach protected by BDP has far  
2 superior results to our 25-year standard of care. Again,  
3 it is not the GVH that is killing people; it is the  
4 treatment for GVH that's doing the job.

5 I think we have adequately proved that BDP has  
6 a steroid-sparing effect. I'm not sure I can go back 25  
7 years in time and grab our old regimens. I am quite  
8 convinced. I think it might well be unethical to do  
9 that kind of a comparison.

10 DR. RODELL: Excuse me. Dr. Sullivan from  
11 Duke was actually not involved in the trial.

12 CHAIRPERSON HUSSAIN: I just have another  
13 question, though, please. If you say you don't want to  
14 go back to the past and grab old regimens, and if your  
15 drug is currently not available on the market, and we  
16 have heard that people use the oil-mixed product with  
17 something, is that what people are currently using? Is  
18 that what the alternative out there is?

19 DR. McDONALD: The alternative is what I call  
20 the ad-hoc way of formulating something that is similar  
21 to what we are using in these trials, that is, to use  
22 the corn oil combined with budesonide.

1           At our center, this is written into our  
2 standard practice manual, this is how we treat GVH that  
3 presents with nausea, vomiting, diarrhea, and anorexia.

4           We do this kind of make-it-up-ourselves  
5 approach that approximates what has been done in these  
6 two randomized trials. It is our standard of care  
7 because my transplant oncologist are firmly convinced by  
8 the data having seen patients on this approach.

9           CHAIRPERSON HUSSAIN: Thank you.

10          DR. SULLIVAN: Thank you for the deliberations  
11 and the comments. No, we can't use the corn oil, and it  
12 just can't be tolerated. What I would like to do is  
13 kind of give this in a 30-year context.

14          You certainly are right in saying you don't  
15 want to lower the bar. The difficulty is that shifting  
16 time line from day 50 to day 80 where you do have a  
17 positive efficacy, and so that's a conundrum for you.

18          The other is, why does it work in non-  
19 myeloablative better than the other? We don't know, but  
20 I think what I would like to do is put it in context as  
21 a transplanter. I just updated the Thomas textbook on  
22 graft-versus-host disease, and so these are fairly

1 current.

2 In the last 25 years, there have only been 30  
3 worldwide trials with GVHD as a readout. Eighteen of  
4 them were for prevention of GVHD where the readout is  
5 GVH, yes or no, and twelve have been for GVHD treatment.

6 Of those 30 trials, only five trials had a  
7 survival advantage proven. Of those five trials, only  
8 one was in treatment of GVHD, and that was the 875 BDP  
9 Study.

10 I would urge the group to kind of look at the  
11 totality. You said it. Look at the totality of  
12 evidence, see how that fits within the framework of  
13 keeping rigorous studies.

14 To show a day 200 reduction in mortality of 71  
15 percent, a one-year reduction in mortality of 46 percent  
16 in the context of prior GVHD treatment trials has just  
17 not been seen. That's why this is a really important  
18 deliberation for you, and I appreciate your  
19 deliberation.

20 CHAIRPERSON HUSSAIN: Thank you.

21 Yes, Dr. Richardson?

22 DR. RICHARDSON: This trial included the 00-



1 02 trial, included a number of patients with renal cell  
2 carcinoma, all of whom I assume would have gotten the  
3 non-myeloablative regimen. If you take out that group,  
4 what do these numbers look like? Presumably, these  
5 folks have a different immunologic makeup.

6 MR. RODELL: Mr. Cruickshank.

7 MR. CRUICKSHANK: Yes, let me just briefly  
8 respond. There was one patient that had renal cell  
9 carcinoma in the study.

10 DR. RICHARDSON: Okay.

11 CHAIRPERSON HUSSAIN: Dr. Mortimer.

12 DR. MORTIMER: I think we keep perseverating  
13 (sic) on this distinction in the non-myeloablative  
14 regimen. I wonder what the complications were in a non-  
15 myeloablative group versus the marrow-ablative group?

16 I mean, I truly want to embrace the notion  
17 that this drug is superior and it does preserve the  
18 complications of long-term steroid use.

19 But as I look at the briefing documents, there  
20 was more hypertension in the BDP arm. There was more  
21 bacteremia in the BDP arm. There was more  
22 hypercalcemia.

1 I'm having a hard time buying that even though  
2 I thoroughly agree that there were fewer fungal  
3 infections in the group that got BDP.

4 Was that because there was a non-marrow-  
5 ablative group, and therefore they had a better immuno-  
6 constitution and were less likely to get fungal  
7 infections? I'm having a hard time buying that  
8 argument.

9 MR. RODELL: Let me comment briefly on that. I  
10 think, first of all, the adverse events rates are low  
11 enough that it is a little bit difficult to look at them  
12 from a subgroup perspective, but let me address some of  
13 the specific ones that you have raised.

14 With respect to hypertension, hypertension was  
15 reported as an adverse event more frequently in the BDP  
16 arm, although the numbers are very small and the  
17 differences are small.

18 But when we actually went back and looked at  
19 the individual blood pressures in all of the patients,  
20 and we checked blood pressure at every single clinic  
21 visit and looked at change over time, looked at the  
22 individual ranges all of those, there is no difference

1 between the groups.

2 With respect to the laboratory values also  
3 that were reported more frequently as adverse events,  
4 and those included hypophosphatemia and hypocalcemia.  
5 The medians and the ranges and the frequency of  
6 treatment-emergent abnormal values, almost no difference  
7 between the group. We think that that actual represents  
8 reporting bias rather than anything meaningful.

9 I think the two areas that are a little bit  
10 difficult, more difficult, to address are we can't  
11 really say very much about fatigue because there is no  
12 laboratory test that we can do for that. There may be a  
13 couple of other ones.

14 CHAIRPERSON HUSSAIN: Any other comments or  
15 discussion points?

16 Yes, sir.

17 DR. FLATAU: I just wanted to address Dr.  
18 Perry's point about efficacy and lowering the bar. You  
19 know, I'm an AML survival, that means I participate in  
20 here. It's a rare admission. I have been on three  
21 panels now and at several teleconferences, and I think  
22 this is the first time I've heard about a randomized

1 trial.

2 Yes, I am worried about lowering the bar. I'm  
3 waiting for some drug company to come up and say, "Well,  
4 we have one patient we treated and we want to prove this  
5 drug." That seems to be where it's going.

6 I think that this is certainly far from the  
7 bottom in terms of what has been presented and what's  
8 been done. I guess I want to reemphasize the point that  
9 for patients I think they have to realize that even if  
10 we do another trial and it's positive, it's still kind  
11 of a crap shoot. The best guess we can make now is that  
12 it probably is going to benefit some patients, and we  
13 should approve the drug.

14 CHAIRPERSON HUSSAIN: Just a clarification  
15 point again. We are not voting to approve. That is not  
16 our role. We are an advisory to the FDA. Our role is  
17 to vote on the question of substantial benefit, and I  
18 think that is what we are stuck with.

19 You have to take it into the context of the  
20 question and not so much into the big picture,  
21 recognizing in the last two and a half years that I've  
22 been on the Committee there have been votes when

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1     overwhelmingly we were against something and the FDA  
2     approved it anyway.

3                     (General laughter.)

4                     CHAIRPERSON HUSSAIN: They don't necessarily  
5     always listen to us. Thank you.

6                     If there are no other burning questions or  
7     comments, I'm going to try to ask that we go ahead to  
8     the vote.

9                     Put the question up again, please.

10                    (Staff complies.)

11                    CHAIRPERSON HUSSAIN: We will begin around the  
12     table. No description of why one is voting yes or no,  
13     just the vote yes or no. Identify please yourself and  
14     speak clearly into the microphone.

15                    Dr. Link, can we begin with you, please?

16                    DR. LINK: Michael Link. I vote no that it  
17     has not shown substantial evidence.

18                    MS. HAYLOCK: Haylock, no.

19                    DR. HARRINGTON: No.

20                    DR. MORTIMER: Mortimer, no.

21                    CHAIRPERSON HUSSAIN: Hussain, no.

22                    DR. RICHARDSON: Richardson, no.

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1 DR. PERRY: Perry, no.

2 DR. SPORTES: Sportes, yes.

3 DR. FLATAU: Flatau, yes.

4 CHAIRPERSON HUSSAIN: Two yes, seven no.

5 Dr. Pazdur, do you want us to go into the  
6 second issue of design, of study design?

7 DR. PAZDUR: We've already started the  
8 discussion.

9 CHAIRPERSON HUSSAIN: Yes, but I thought it  
10 was for discussion, not for a vote.

11 DR. PAZDUR: We've already started the  
12 discussion.

13 CHAIRPERSON HUSSAIN: In terms of what ideal  
14 study design is?

15 DR. PAZDUR: Yes.

16 CHAIRPERSON HUSSAIN: Maybe I can begin and  
17 ask the sponsor first, when you look at your data and  
18 you look at what you started with and then what you got,  
19 what do you think, like in your gut with yourself  
20 looking at this, where do you think your strongest point  
21 was? Because that seems to me where you should then go  
22 back to look at that area because that may be where

1 you're going to get your real clear answer.

2 DR. RODELL: Well, I think the two strongest  
3 points are the time-to-treatment failure through study  
4 day 80 and the mortality. I'm going to ask Dr. Gooley  
5 to address the issue. We think that attempting to power  
6 a study for mortality is probably not something that can  
7 actually practically be done.

8 DR. GOOLEY: Yes. Ted Gooley, Fred Hutchinson  
9 Cancer Research Center. Thanks, Dr. Rodell.

10 As Dr. Rodell indicated and as you probably  
11 know, power for time-to-event endpoints is driven by the  
12 number of failures. If we tried to power the study for  
13 mortality, the power would be driven by the number of  
14 deaths, and a number of assumptions would go into  
15 estimating power for time-to-event endpoints.

16 We don't know exactly the population that we  
17 would do a potential future study in, so we don't know  
18 for certain what those assumptions would be. But if we  
19 make some very simple assumptions, for example, if we  
20 assume that the true hazard ratio is 0.7, that would  
21 require, roughly, 330 deaths, not patients but deaths.

22 If we assume that the true hazard ratio is 0.6

1 between treatment arms, it would require, roughly, 160  
2 deaths and a true hazard ratio of 0.55 would require,  
3 roughly, 120 deaths. The accrual would be quite  
4 substantial.

5 CHAIRPERSON HUSSAIN: Any words of wisdom from  
6 committee members as far as study designs or suggestions  
7 to the Sponsor or to the FDA with regard to what they  
8 should advise them to do?

9 Sir?

10 DR. FLATAU: Yes. I would like to think at  
11 least a secondary endpoint of overall survival at least  
12 at one year, if not longer, would be interesting.

13 CHAIRPERSON HUSSAIN: I guess the only concern  
14 I have about survival is unless you make the population  
15 entering very uniform with the same diseases, the same  
16 regimen, the same everything, you are never going to be  
17 able to interpret the results, it would seem to me,  
18 unless you stratify very clear where you include several  
19 groups of people clearly stratified equal in each arm.  
20 I can't see how you would do it if you argue that we  
21 don't have a huge population.

22 DR. SPORTES: Actually, I was wondering and I



1 should have asked earlier why the secondary endpoint was  
2 not the primary endpoint.

3 It seems to me from a transplant perspective  
4 that a followup at 80 days is probably the strongest  
5 endpoint, which is why I voted yes is because I think to  
6 me conceptually this is much more a reflection of the  
7 entire intervention. Why was that not chosen? I just  
8 seek some explanation.

9 DR. RODELL: May I respond to that?

10 CHAIRPERSON HUSSAIN: Yes.

11 DR. RODELL: I think it's important to  
12 recognize the history of how this drug was developed.  
13 The initial study, the initial efficacy study was Study  
14 875 that was done essentially on a completely open  
15 field, that is, this type of study had never been done  
16 before and so the 30-day endpoint was selected in that  
17 study, essentially, arbitrarily.

18 Once the results of that study were know, Dr.  
19 McDonald spoke with and talked to the FDA, shared with  
20 them the results of that study and began to design the  
21 02 Study.

22 The two components with respect to efficacy

1 that were requested essentially by the Agency at that  
2 time were to extend those to see if the percentage of  
3 responders could be increased, whether the signal could  
4 be amplified, and then to look for durability of  
5 response, that is, to make sure that the patients the  
6 moment they came off the drug didn't immediately fail  
7 treatment.

8 The 50-day endpoint was an arbitrary endpoint  
9 at the time. No previous trials had been done that  
10 looked at like this. The day-80 endpoint was simply  
11 done to add 30 days to demonstrate durability.

12 I think that, as we discussed before, very  
13 clearly the failure to reach the 50-day endpoint was  
14 based on what happened in the first 10 days, what is  
15 essentially an imbalance and loss of power, as Mr.  
16 Cruickshank said, in the first 10 days.

17 If you will indulge me for a minute, I think  
18 one of the things that is important for us to point out  
19 is that this is a patient population of 7,000 patients a  
20 year. This study took three years to enroll and half of  
21 the patients had to come from the Fred Hutchinson  
22 because it is such a busy center.

1           The practicality, even without getting into  
2     the economics of doing another study, is going to be a  
3     significant issue in terms of the future development of  
4     the drug.

5           CHAIRPERSON HUSSAIN: Thank you.

6           Any other comments?

7           (No verbal response.)

8           CHAIRPERSON HUSSAIN: Well, we will begin with  
9     Dr. Link, then, and we will go around the table.

10          DR. LINK: I have two. The first is a  
11     question of what if you actually -- the mistake maybe  
12     was that you started the clock too soon in terms of you  
13     started on the day of randomization. Either if you if  
14     you had randomized after the 10 days and only randomized  
15     responders -- Dave, you're not going to shoot me here,  
16     are you?

17          The second things is to actually do an  
18     analysis, start the clock when they achieve remission  
19     and throw out people who didn't achieve remission, which  
20     is often done in transplant studies. That would be one  
21     suggestion.

22          What does it look like? Does it look better?

1 Does it look like you had achieved your goal, just out  
2 of curiosity?

3 DR. RODELL: Yes, let me ask Mr. Cruickshank  
4 to address that.

5 (PowerPoint presentation is in progress.)

6 MR. CRUICKSHANK: Going back to that question  
7 about, what is the effect of those early failures, we  
8 did do an analysis to look at the effect whereby  
9 patients who failed during the 10-day high-dose  
10 induction period of prednisone.

11 If you sensor the patients at the time of  
12 treatment failure, you can see here that we lose the  
13 effect of the crossing Kaplan-Meier curves. We have a  
14 fairly clear, sustained difference between the arms at  
15 day 50 as well as day 80.

16 DR. LINK: You should have presented that.  
17 Second of all, I was impressed with the ability of the  
18 bone marrow transplant community to do study with soft-  
19 tissue endpoints, a lot of patients, a "New England  
20 Journal of Medicine" article, very prompt approval.

21 I'm just wondering why you're so discouraged  
22 about doing a trial like this? Admittedly, not

1 everybody gets bowel GVH. But if you're transplanting  
2 60-year-olds, you probably will get a lot of it. I'm  
3 just wondering why you're so pessimistic about getting  
4 it done? We're going to do it in pediatrics, and we  
5 don't have that many patients.

6 DR. McDONALD: I'm pessimistic about doing a  
7 placebo-controlled trial because I don't think we can  
8 get our IRB to approve one based on these data. I think  
9 there are other options.

10 I mean, we have thought about a prophylaxis  
11 trial, for example, but that's a different indication,  
12 though. This indication is for treatment of acute  
13 graft-versus-host disease. A prophylaxis trial is for  
14 prophylaxis of acute graft-versus-host disease.

15 From the FDA's comments, you don't like  
16 merging of different kinds of trials to come to a  
17 conclusion. That would take, what, two placebo-  
18 controlled prophylaxis trials for that --

19 DR. PAZDUR: We are always open for  
20 negotiations.

21 (General laughter.)

22 DR. McDONALD: All right. That's one thought,

1 that is, if this drug is as highly effective as a  
2 topical therapy for treatment, it should be equally  
3 effective and relatively nontoxic as prophylaxis. I  
4 think that is one potential option.

5 CHAIRPERSON HUSSAIN: Gee, prophylaxis sounds  
6 like very attractive. Why wait until an event happens?  
7 I mean, that would be a clinically meaningful endpoint.

8 DR. McDONALD: I agree. Plus, it's easier to  
9 enroll patients who aren't sick.

10 CHAIRPERSON HUSSAIN: Correct, correct.

11 DR. McDONALD: You can get a larger accrual.  
12 Seven thousand patients should provide enough to enroll.  
13 The hope there is that one would with effective  
14 prophylaxis take what would ultimately be Stage IV and  
15 turn them into Stage III, take Stage III and turn them  
16 into Stage II, take Stage II and make them end up being  
17 Stage I. I think that is a feasible thing. I can't  
18 speak for the company.

19 I think there are some financial issues. This  
20 is a relatively small company, and I think that is a  
21 consideration. In addition to the ethical and practical  
22 issues, I think there are financial issues.

1 DR. SCHABER: Dr. McDonald -- Chris Schaber,  
2 president of Dor Bio Pharma -- that is in fact the  
3 issue. For a company our size, we've put a lot of time,  
4 effort, money, and resource into this study to support  
5 Dr. McDonald and the rest of the investigators to go  
6 after an indication that, quite honestly, big pharma  
7 didn't want to touch because it is a very small patient  
8 population.

9 Although, as was outlined here and the experts  
10 have spoken, we did not achieve the primary endpoint  
11 without maybe the right sensoring or guarantee period.

12 With regard to the direct correlation of 80-  
13 day as well as survival, which as Dr. Sullivan has  
14 clearly stated in all of the trials that have been done  
15 has never been seen, this is really an important trial  
16 for us. To move forward from here and start over is  
17 really economically not feasible for us with this  
18 product.

19 CHAIRPERSON HUSSAIN: Dr. Mortimer.

20 DR. MORTIMER: Yes. My suggestion was going  
21 to be a prophylactic study, but also it seems to me that  
22 the biggest selling point of this drug is that it

1 minimizes toxicity of steroids.

2           However the study is designed, a comparison of  
3 this agent against steroids, if you demonstrate an  
4 improved toxicity profile, I can't but imagine that it  
5 would move farther up in line for the indication  
6 indicated here today.

7           CHAIRPERSON HUSSAIN: Okay. If there are no  
8 other questions, I think that the FDA -- I'm sorry, Ms.  
9 Haylock.

10           MS. HAYLOCK: I just wanted to suggest that  
11 since some of the side-effects that were of concern to  
12 people, for example, fatigue and then also some of the  
13 other psychosocial issues, that some of our public  
14 presenters brought up, there are quite a few  
15 psychosocial tools or instrumentation available that  
16 could be pretty easily incorporated into any trial. I  
17 would suggest doing that. I think that would help as  
18 well.

19           MR. SCHABER: May I say one more thing,  
20 please?

21           CHAIRPERSON HUSSAIN: (Chairperson moving head  
22 up and down.)



1 DR. SCHABER: Dr. Pazdur had pointed out a  
2 treatment IND and I wanted to maybe put out another  
3 possibility of an accelerated approval type of mechanism  
4 where we could follow along with Phase IV follow-on  
5 studies, but be able to have the drug available to the  
6 patients and out there and marketed for the current  
7 indication while we do follow-on studies.

8 CHAIRPERSON HUSSAIN: He did say he  
9 negotiates.

10 I think we will conclude now as there are no  
11 additional comments or questions. I assume the FDA got  
12 all their questions answered. I am going to raise a  
13 question with the FDA, and this is not stimulated by the  
14 excitement that just happened a minute ago, but it began  
15 actually at lunch. We were chatting about it.

16 Considering the two votes that went here to  
17 considering the two cases that were brought in front of  
18 ODAC and understanding the advantage of transparency,  
19 public education discussions and such, what I get from  
20 the last two and a half years on this Committee is that  
21 not meeting your primary endpoint is a fatal flaw.

22 Barring some surprising, phenomenal benefits

1 in survival, and we've seen some survival advantages but  
2 nothing spectacular, barring something like that, what  
3 would be the point in bringing these discussions  
4 forward?

5 DR. PAZDUR: I think to get public input on  
6 and for discussion of points that may be missed by the  
7 FDA reviewers. I am very thankful for the discussion  
8 that we had today.

9 Personally, this drug because of this  
10 discussion, irrespective of the vote, has a much  
11 different impact in my mind. We will have discussions  
12 internally on this drug and discuss the points that were  
13 presented here.

14 CHAIRPERSON HUSSAIN: Thank you.

15 Dr. Perry, a final comment.

16 DR. PERRY: Yes.

17 Dr. Pazdur, could I ask that we have security  
18 next time?

19 DR. PAZDUR: I had asked for that previously,  
20 and I will ask the executive secretary here to contact  
21 her supervisors to ensure that. Please resend my email  
22 that I sent to your boss.

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1 CHAIRPERSON HUSSAIN: Dr. Pazdur, can they  
2 come with me until I get to Ann Arbor to my home?

3 (General laughter.)

4 DR. PERRY: The members of this Committee, if  
5 we get paid anything, it's lost in the expense accounts.

6 DR. PAZDUR: I actually apologize for that.

7 DR. PERRY: Yes. We perform this as a public  
8 service. We take a lot of grief from the public, the  
9 people who speak, many of whom speak off topic and look  
10 at this as a bully pulpit to criticize the members. I  
11 think at the very least we should be secure. We should  
12 have some degree of security so that our Chairman is not  
13 threatened.

14 DR. PAZDUR: I couldn't agree with you more.

15 DR. PERRY: I didn't think we would differ on  
16 this issue.

17 DR. PAZDUR: I could not agree with you more,  
18 and I have brought this up to the FDA management staff.  
19 I am directing Ms. Clifford to tonight to please contact  
20 her boss. I think it is imperative that even before the  
21 next meeting, tomorrow, our next session, that something  
22 be in place.

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1           CHAIRPERSON HUSSAIN: Is that the Department  
2 of Defense I hope?

3           (General laughter.)

4           CHAIRPERSON HUSSAIN: Okay. Thank you very  
5 much. We will adjourn.

6           (WHEREUPON, at 4:28 p.m., the meeting was  
7 adjourned.)

8                                           \* \* \*

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