

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	:	CA No. 99-2496 (GK)
	:	March 14, 2005
Plaintiff,	:	
	:	9:32 a.m.
	:	
v.	:	Washington, D.C.
	:	
PHILIP MORRIS USA, et al.,	:	
	:	
Defendants.	:	
. . . . .	:	

VOLUME 75  
MORNING SESSION  
TRANSCRIPT OF TRIAL RECORD  
BEFORE THE HONORABLE GLADYS KESSLER  
UNITED STATES DISTRICT JUDGE

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20 Proceedings reported by machine shorthand, transcript produced  
by computer-aided transcription.

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

2 THE COURT: Good morning everybody. This is United  
3 States of America versus Philip Morris. CA 99-2496.

4 Mr. Goldfarb, you still had some additional cross; is  
5 that right?

6 MR. GOLDFARB: Yes, and I hope to complete it in about  
7 half-hour, 45 minutes, Your Honor.

8 THE COURT: All right. And then, Mr. Webb, of course,  
9 will do his direct.

10 Dr. Langenfeld, you're still under oath this morning.

11 MR. GOLDFARB: Your Honor, at the outset I do want to  
12 note for the record that the United States has confirmed that  
13 the two exhibits relating to the Holland exhibit, the Philip  
14 Morris ad, and then the correspondence between the BAT chairman  
15 and Mr. Weissman of Philip Morris are in evidence as exhibit  
16 numbers other than the ones that I was using.

17 And so just to note for the record U.S. Exhibit 28688  
18 has been admitted as 20236, and U.S. Exhibit 36292 is in as U.S.  
19 Exhibit 78984, and those were admitted in connection with the  
20 testimony of Dr. Harris through Order 849.

21 THE COURT: All right. Defendants have heard --

22 MR. WEBB: We agree with that.

23 THE COURT: Good. Please proceed.

24 JAMES A. LANGENFELD, Ph.D., Defendant's witness, RESUMES

25 CROSS-EXAMINATION (Cont'd.)

1 BY MR. GOLDFARB:

2 Q. I just wanted to touch on because of some of the discussion  
3 over these documents, Dr. Langenfeld -- good morning.

4 I just wanted to touch on one more aspect of that  
5 particular incident, because you had testified the other day  
6 that it was your understanding that the Philip Morris ad and the  
7 publication of information about the Barclay cigarette and some  
8 of the discrepancies between the FTC tar yields and actual human  
9 doses received was really primarily focused outside the United  
10 States.

11 Do you recall that testimony, sir?

12 A. I guess -- maybe you could rephrase it. I'm not quite sure  
13 what you're asking, to be honest.

14 Q. Okay. My question is, you indicated that your focus in your  
15 opinions and investigation as to the FTC actions in this case  
16 was focused on the United States. Do you recall that testimony?

17 A. Yes, that would be correct.

18 Q. And then you indicated that the public statement by Philip  
19 Morris HV in Holland concerning the Barclay cigarette was one  
20 that you hadn't looked at because it was one that had occurred  
21 in Holland; correct?

22 A. With regards to this case, that would be correct.

23 Q. Okay. Well, I would like to just show you U.S.  
24 Exhibit 46577, please. And we will get you a copy of that.

25 MR. GOLDFARB: Your Honor, this is another document

1 related to this incident that is in evidence already.

2 Charles, if you would just cull out the top, please.

3 Now, sir, you recall, do you not, the September 1983  
4 letter that we looked at the other day between Peter Sheehy of  
5 BAT and Mr. Weissman of Philip Morris?

6 A. I remember -- I remember looking at some documents. I'll  
7 take your representation.

8 Q. Okay. Well, do you recall looking at a letter that talked  
9 about industry cooperation on smoking and health issues? That  
10 was a letter of September 1983 from Mr. Sheehy of BAT to  
11 Mr. Weissman of Philip Morris.

12 A. Well, I remember looking at a letter with you. Do you want  
13 me to look at it again?

14 I mean, we looked at a letter for sure, and there was  
15 some correspondence between the two. I don't know if I want to  
16 characterize it more than that.

17 Q. Okay. Well, if we look at U.S. Exhibit 46577 at the top, we  
18 can see this is a telephone conversation between H. Coleman and  
19 EAAB dated the 26th of October 1983.

20 Do you see that?

21 A. I do see that.

22 Q. And H. Coleman, you understand sir, refers to Hugh Coleman,  
23 an executive at Philip Morris?

24 A. I don't know the full -- recall the full history of this  
25 document, but I know there's a Hugh Coleman at Philip Morris.

1 Q. And, sir, are you familiar with a Mr. -- its Mr. Edgar  
2 Bruell, B-r-u-e-l-l, who is an officer at BATCo?

3 A. Yes, I just don't recall frankly, but once again I'll take  
4 your representation on that.

5 Q. Okay. You see this indicates that's a telephone  
6 conversation between those two gentlemen. And Mr. Coleman at  
7 this time was president of Philip Morris USA; correct?

8 A. At this time he may very well have been. I don't remember  
9 the exact dates of his presidency.

10 Q. And if we look at the first exchange or the first recorded  
11 comment by Mr. Coleman at the top, you see it says HC?

12 A. I see that.

13 Q. And the comment that is recorded from this conversation is  
14 "Essential that the industry hang together." Do you see that?

15 A. I see it says that, yes.

16 Q. And then if you skip one and go down, it says, "They must  
17 try to prevent this happening in the future."

18 Do you see that, sir?

19 A. I see that statement.

20 Q. Okay. And then if you turn to the second page, the second  
21 to last comment made by Mr. Bruell, we see Mr. Bruell telling  
22 Mr. Coleman, "It's essential to ensure that in the future no  
23 member of the industry does anything similar."

24 Do you see that, sir?

25 A. I see that.



1 Q. And so the president of Philip Morris USA, at the same time  
2 that the confidential proceeding was occurring before the FTC on  
3 the Barclay incident, was telling the officer of BATCo, as a  
4 representative of BAT and the parent of B&W, that it was  
5 essential that the industry hang together even while that  
6 proceeding was occurring. Right, sir?

7 MR. WEBB: Objection, asked and answered. He just  
8 said -- it's asked and answered.

9 THE COURT: Sustained.

10 No, you don't have to answer.

11 THE WITNESS: Okay, I'm sorry.

12 BY MR. GOLDFARB:

13 Q. Now, sir, going back to the Barclay investigation that was  
14 occurring at the FTC.

15 In discussing the potential for compensation with the  
16 Barclay design, none of the defendants told the FTC that not  
17 only could smokers compensate with Barclay but, in fact, they  
18 would because of their addiction to nicotine. Is that correct?

19 A. Well, they certainly pointed out there was compensation. I  
20 think -- I don't recall them specifically targeting that  
21 compensation issue to nicotine in the documents that I reviewed.

22 Q. In the documents that you reviewed?

23 A. Right.

24 Q. And you indicated in your direct testimony that you  
25 undertook what you believed to be a comprehensive review of the

1     FTC documents, or the documents related to this investigation  
2     concerning the Barclay cigarette and the FTC; correct?

3     A. Yes, that, and notices for public comment that came out  
4     afterwards and all that. I made a very thorough investigation.

5     Q. And certainly in your direct testimony, sir, you haven't  
6     pointed to a single document where the defendants told the FTC  
7     that their understanding that smokers would compensate because  
8     of their need for nicotine; correct?

9     A. They indicated there would be compensation to get something.  
10    I don't recall them specifically referring to nicotine, although  
11    obviously there was lots of public information relating  
12    compensation to nicotine at that point in time.

13    Q. But my question again, because my question goes to nicotine,  
14    your answer is that you don't -- you're not aware of any  
15    statement; correct, sir?

16    A. There were statements, but if you're talking about specific  
17    statements that I recall that the cigarette manufacturers made  
18    to the FTC at that point in time. They talked about  
19    compensation. I don't recall them mentioning nicotine.

20    Q. Sir, are you aware that the defendants had substantial  
21    information in their files that went just to that question; that  
22    is, that smokers compensate because of nicotine in cigarettes?

23    A. There are documents in the record that discuss nicotine and  
24    at least a smoker's relating that to the habituating nature of  
25    cigarettes, that's for sure.

1 Q. I'm not sure what you referred to record, when you say there  
2 are documents in the record.

3 A. I'm sorry. Let me rephrase that. I have seen documents  
4 that reflect what I just said.

5 Q. Okay. And just -- we will take one example quickly. If I  
6 could have U.S. Exhibit 21736, please.

7 A. Thank you.

8 Q. Dr. Langenfeld, if you would just turn the blank cover page  
9 to look at the cover page of the document. You see that it's an  
10 RJR document entitled: Research planning memorandum on a new  
11 type of cigarette delivering a satisfying amount of nicotine  
12 with a reduced tar-to-nicotine ratio.

13 Do you see that, sir?

14 A. I see that.

15 Q. If you just turn to -- it's the third or fourth to last  
16 page, Bates number 2042. Do you see that, sir?

17 A. I'm on page...

18 Q. It's the top, the internal page 9 of the document.

19 A. Yes, I'm there.

20 Q. And this is just to show -- you see the document is signed  
21 by Claude Teague --

22 A. Yes.

23 Q. -- of Reynolds. And it's dated March 28, 1972.

24 A. That's correct.

25 Q. And if you look at just that concluding paragraph, you just

1       see that the thoughts and philosophies expressed in this  
2       document come from many sources and are certainly not solely  
3       those of the writer.

4               Do you see that, sir?

5       A.   Yes -- well, let me just read it quickly.

6               (Pause) I see what it says.

7       Q.   Okay.   Now, if we could go back to page -- internal page 3  
8       of the document, the Bates ending in 2036.

9       A.   Page 3, yes.

10      Q.   Okay.   The second paragraph on that page starts out with  
11      Mr. Teague saying, "I believe that for the typical smoker  
12      nicotine satisfaction is the dominant desire, as opposed to  
13      flavor and other satisfactions."

14             Do you see that?

15      A.   I do.

16      Q.   And if you look at the last two sentences of the paragraph,  
17      the author writes, "What the smoker basically wants, I believe,  
18      is nicotine satisfaction accompanied by acceptable flavor and  
19      mildness.   Therefore, in designing any cigarette product, the  
20      dominant specification should be nicotine delivery."

21             Do you see that?

22      A.   I do see that.

23      Q.   And again now, sir, if we turn to the bottom of page 7,  
24      Bates number ending in 2040.   If we look at -- and it's going to  
25      carry over to the next page sir, the very last sentence -- the

1       very last sentence of that page Mr. Teague writes, "If, as  
2       claimed by some antitobacco critics, the alleged health hazard  
3       of smoking is directly related to the amount of tar to which the  
4       smoker is exposed per day and the smoker bases his consumption  
5       on nicotine, then a present low tar/low nicotine cigarette  
6       offers zero advantage to the smoker over a regular filter  
7       cigarette, but simply costs him more money and exposes him to  
8       substantially increased amounts of allegedly harmful gas phase  
9       components in obtaining his desired daily amount of nicotine."

10               Do you see that, sir?

11       A.   I do.

12       Q.   Now, that was about nine years before the Barclay  
13       investigation began at the FTC?

14       A.   The document's handwritten dated 1972, so that would be  
15       about nine years.

16       Q.   Okay. Now, sir, would you agree that the Barclay incident,  
17       as you describe at length in your testimony, primarily concerned  
18       the issue of ventilation and smoke dilution?

19       A.   That was part of it, but they certainly went into a wide  
20       variety of other methods of compensation.

21       Q.   Yes, but I'm talking about in terms of the physical design  
22       features at issue in the Barclay cigarette had to do with the  
23       channels which increased the ventilation, and the allegations  
24       where, in terms of the amount of smoke dilution that would  
25       occur; correct?

1     A. Well, that was the challenge. But, as I said, I mean the  
2     Barclay investigation extensively looked into other techniques  
3     or other ways to dilute smoke and the potential for  
4     compensation.

5     Q. Such as ventilation holes?

6     A. Such as ventilation holes, papers, things like that. There  
7     were a lot of things.

8     Q. In discussing this design feature of ventilation holes or  
9     even the Barclay channels, the companies didn't tell the FTC  
10    that another important consideration of ventilation, whether  
11    they actually changed the composition of the tar that smokers  
12    obtained, did they?

13    A. You know, I don't recall anything sitting here that there  
14    was -- it was mostly a discussion of what the FTC test method  
15    would show. And that's certainly the bulk of it, if not all of  
16    it.

17    Q. And certainly they didn't tell the FTC, sir, did they, that  
18    ventilation, which they called the primary design feature used  
19    to achieve low yields on the FTC test, made the tar from  
20    so-called light cigarettes more mutagenic on established  
21    biological tests?

22    A. You know, I don't recall specific documents where they --  
23    where they addressed that particular allegation, no.

24    Q. And the documents that you cite, sir, I think at pages 108  
25    and 109 of your testimony, they don't talk about the role of

1 cigarette design in actually influencing how smokers smoke the  
2 cigarette; correct?

3 A. I guess I'm not -- I guess I don't understand the question  
4 very well.

5 Q. Well, the statements that you've quoted from the documents  
6 and -- that are in the submission, sir, don't they go to the  
7 fact that there are these design -- there are design mechanisms  
8 such as the fluted channels or the ventilation holes, and that  
9 smokers can -- can, by changing their puffing behavior, obtain  
10 different levels of tar and nicotine?

11 A. Can and some of them suggest -- some of the documents, you  
12 know, indicate that they do.

13 Q. That they do.

14 However, what I'm asking, sir, is none of these  
15 documents say that the -- that the design features themselves  
16 change how smokers smoke the cigarette?

17 A. I guess I'm not quite sure. Let me try.

18 They certainly say that for different design features  
19 there will be compensation. Do they -- is your question that  
20 the design itself will change someone's behavior?

21 Q. Yes, that's what my question goes to.

22 A. Gosh, I just didn't think about it that way.

23 The answer to that is honestly, I don't know. I mean,  
24 they really were primarily focused -- they were extensively  
25 focused on what happens when lower tar and nicotine cigarettes

1 are smoked and what happens and whether people actually  
2 compensate.

3 Q. So if we go -- if we look at U.S. Exhibit 21829, please.

4 A. Thank you.

5 Q. And, sir, if we look at the top of this document we see that  
6 it's a memorandum from D.J. Wood to a number of people at BATCo,  
7 including Mr. Sheehy, who we saw before, Dr. S.J. Green, P.L.  
8 Short, and other BATCo employees.

9 Do you see that?

10 A. I see that.

11 Q. And you see it's dated June 28, 1977?

12 A. I do see that.

13 Q. And the cover memorandum states, "I enclose the following  
14 paper for consideration at the MPDC meeting on the 1st July."

15 And the title is: The design of low-delivery cigarettes, paren,  
16 with regard to smoker compensation, close paren.

17 Do you see that?

18 A. I see that.

19 Q. Now I just want to focus your attention on the last page of  
20 this document, sir. Both paragraphs, actually.

21 But right at the top, the author of this memorandum  
22 states, "Research is also required to study the interaction  
23 between the smoker and any options in the design of these low-  
24 delivery products since the particular way in which a cigarette  
25 is designed to give low deliveries will influence the way the



1 cigarette is smoked. Smokers will not necessarily obtain the  
2 same amount of smoke from two products with identical league  
3 table deliveries achieved by different means."

4 Do you see that, sir?

5 A. I see that.

6 Q. Then if we go to the next paragraph. "Although marketing  
7 consideration will influence the lower limits towards which  
8 delivery will be reduced, some of the effects of smoking, e.g.,  
9 the maintenance of performance and difficult tasks, appear to be  
10 due to nicotine itself and a minimum nicotine intake must be  
11 achieved before such effects occur."

12 And then, "The minimum effective nicotine level will  
13 depend very much on the idiosyncrasies of individual smokers,  
14 but we should aim at a cigarette delivering at  
15 least .5 milligrams of nicotine. With appropriate design,  
16 including moderately low draw resistance, smokers will be able  
17 to obtain up to 1 milligram nicotine from such a cigarette."

18 Do you see that, sir?

19 A. I see that.

20 Q. If we can now look at Exhibit 20230. Do you have a copy  
21 before you, sir?

22 A. I do.

23 Q. And, sir, you see that at the top here, it's titled: The  
24 Structured Creativity Group, Thoughts by C.C. Greig, R&D  
25 Southampton, Marketing Scenario?

1 A. I see that.

2 Q. And you understand, sir, Southampton refers to the BATCo R&D  
3 facility in Britain?

4 A. BATCo, I believe, did have an R&D facility in Southampton in  
5 Britain.

6 Q. Again I want to skip ahead quickly, sir, to the Bates number  
7 ending in 5909. It's -- the top, as you can see on the screen,  
8 also is titled specific proposal.

9 A. It's Bates number 5909?

10 Q. Yes, sir.

11 A. (Pause) Okay, I'm there.

12 Q. And we have culled out on the screen, sir, the paragraph  
13 that I'm going to read into the record. Mr. Greig's specific  
14 proposal states:

15 "What would seem very much more sensible, is to produce  
16 a cigarette which can be machine smoked at a certain tar band,  
17 but which, in human hands, can exceed this tar banding. Such is  
18 the case with Barclay. However, Barclay is an extreme example  
19 of this elasticity of delivery, and this may well be why other  
20 manufacturers have spent so much money lining lawyer's pockets  
21 in attempts to get it banned."

22 And Mr. Greig goes on to say, "There are, however, ways  
23 to obtain moderate elasticity through none obvious cigarette  
24 design features."

25 Do you see that?

1 A. I see that.

2 Q. If you go on to the next page the author of the document  
3 lists a few there right at the top, such as high E/T content.

4 Do you understand that to refer to expanded tobacco  
5 content?

6 A. He discusses expanded tobacco on the previous page.

7 Q. And blend selection?

8 A. He says that.

9 Q. And the reduced weight of tobacco and burn time.

10 A. I see those references to those in there.

11 I mean, it's interesting, because he is talking about  
12 Barclay. And maybe I shouldn't modify my previous answers. I  
13 mean, Barclay -- the accusation of Philip Morris and Reynolds  
14 and the Barclay investigation was that the cigarette had been  
15 designed to basically fool the machine and for consumers to get  
16 more tar and nicotine than the FTC machine-measured test.

17 So I guess when I said there wasn't anything  
18 specifically to manipulating the filter; looking at these  
19 documents, that's consistent with the other two companies coming  
20 in and complaining about this.

21 Q. And again, if the companies were utilizing nonobvious means  
22 to accomplish that exact same effect, which is a low FTC tar  
23 yield and allowing smokers to obtain higher deliveries, you have  
24 nothing in your testimony, sir, that suggests that the other  
25 companies identify those nonobvious design features that they

1       were utilizing; is that correct?

2               MR. WEBB: I'm going to object. This assumes facts not  
3       in evidence. The hypothetical form of the question assumes  
4       facts not in evidence or established with this witness.

5               THE COURT: Correct. Sustained.

6       BY MR. GOLDFARB:

7       Q. Sir, you haven't presented anything in your testimony  
8       that -- where the companies identified for the FTC the other  
9       range of design features they were utilizing to obtain low FTC  
10      tar deliveries; is that correct?

11              MR. WEBB: It's the same objection, Your Honor. It's  
12      not been established in the record nor through this witness.

13              THE COURT: Correct. Your question assumes a fact, and  
14      it is not established.

15              MR. GOLDFARB: I can rephrase.

16      BY MR. GOLDFARB:

17      Q. Dr. Langenfeld, the....

18              THE COURT: Mr. Goldfarb, I think all you have to do is  
19      to insert a couple of words there as to whether the companies  
20      had presented any evidence to the FTC as to whether or not, et  
21      cetera.

22              MR. GOLDFARB: Okay. Maybe I could pose it this way?

23      BY MR. GOLDFARB:

24      Q. Sir, you would agree, would you not, that the defendants,  
25      tobacco companies involved in the Barclay investigation, knew

1 more about the design of cigarettes and the way they designed  
2 their cigarettes than the FTC lawyers and economists who were --  
3 who were overseeing the Barclay investigation?

4 A. Well, I mean, I don't know I can say that. I mean, they put  
5 in so much information. The FTC hired experts to study things.  
6 They put in a huge amount of evidence, including evidence on  
7 compensation techniques in cigarettes.

8 Q. I don't -- what do you mean by compensation techniques?

9 A. Well, I mean they pointed out that they all had ventilation  
10 holes. They pointed out that they used expanded tobacco. They  
11 pointed out that they used -- that they had filters that allowed  
12 air to come through. You know, that was pointed out by  
13 virtually all of this -- well, not virtually. I don't know the  
14 percentage, but a huge number of the submissions that went in.  
15 Those are the type of things, as I understand it, that you're  
16 asking about based on these documents, and they certainly put  
17 all of that information in.

18 Q. Sir, is it your testimony that they told the FTC that they  
19 used these types of design features to allow smokers to obtain  
20 greater yields than the FTC test?

21 MR. WEBB: Your Honor, I'm objecting.

22 He's now assuming that they did that; that the  
23 companies designed this to fool the machine. That's what he's  
24 asking.

25 MR. GOLDFARB: That's not my question, Your Honor.

1 THE COURT: No. Objection is overruled.

2 BY MR. GOLDFARB:

3 Q. Do you want me to restate the question?

4 A. If you would, please.

5 Q. I'm asking whether it's your testimony that the defendants  
6 told the FTC that they used these types of design features to  
7 arouse smokers to obtain greater yields than the FTC test?

8 A. No. What they did was they pointed out that when these  
9 techniques were used there was the potential and the reality of  
10 compensation in lighter cigarettes.

11 Q. Sir, of course, the FTC never mandated that the defendants,  
12 or encouraged, even, that the defendants utilized design  
13 features that would result in low FTC tar deliveries but had the  
14 potential for smokers to compensate and thereby obtain higher  
15 levels of tar and nicotine; correct?

16 A. No. The FTC said they had statements that said that they  
17 wanted to encourage people to -- encourage the cigarette  
18 manufacturers to manufacture low-tar and nicotine cigarettes as  
19 measured by the FTC test method.

20 Q. Okay, sir, but the back end of my question is. The FTC  
21 never told them to use features that would do that, but would,  
22 however, allow smokers to obtain higher levels of tar and  
23 nicotine?

24 A. Well, once again, I mean, the FTC realized that the test  
25 method was not going to be exact. They only wanted a rank

1     ordering. That's why they focused on their test method. To the  
2     extent that there was compensation or the people smoked  
3     cigarettes differently, the FTC had been made aware of that  
4     for -- well, since before -- since well before the Barclay  
5     investigation.

6     Q. Okay. But if I could just get an answer to my question,  
7     sir, which is the -- the basic question, which is FTC didn't  
8     mandate that the defendants utilize any particular design  
9     feature in the cigarettes; right?

10    A. That would be correct, yes. That would certainly be true.

11    Q. So the defendants had the option of choosing which design  
12    features that they would utilize in order to reduce the FTC tar  
13    yields; correct?

14    A. I believe that's correct, yes.

15    Q. Now, in terms of the relative ranking, sir, to which you  
16    just testified.

17           The companies did not tell the FTC in the course of the  
18    Barclay investigation that because of the smokers need for  
19    nicotine and the way light cigarettes were designed, that  
20    smokers smoking light cigarettes would smoke them differently  
21    from full-flavor cigarettes and could easily receive comparable  
22    levels of tar and nicotine to the full-flavor versions, did  
23    they?

24    A. Well, once again, I'm -- based on my review of the evidence  
25    the FTC didn't believe that there would be full compensation.

1 Still doesn't believe that today.

2 So -- but with your premise, the FTC -- I'm sorry. Can  
3 I have the rest of question back?

4 Q. Sure. The question had actually nothing to do with what the  
5 FTC understood. What I'm asking you is whether the defendants  
6 told the FTC that because of smokers need for nicotine and  
7 because of the way they designed their light cigarettes, that in  
8 fact smokers of cigarettes that they were selling as light could  
9 obtain tar and nicotine yields comparable to those of the  
10 full-flavor varieties of the same cigarette.

11 A. Well, I guess "could" is probably -- I mean, "could" is a  
12 pretty broad term. As the FTC had said and everyone else,  
13 everybody smokes differently.

14 But if you're talking about did they say on average,  
15 that the consumers would, in fact, completely compensate,  
16 that's -- I don't recall them saying that, ever.

17 Q. And who is the "they" that you're referring to in that  
18 answer, sir?

19 A. The cigarette companies.

20 Q. And so if we could look at U.S. Exhibit 35224.

21 A. Thank you.

22 Q. And, sir, you testified in your direct examination, do you  
23 not, that the companies told the FTC that air dilution or  
24 ventilation was the primary way that they achieved low FTC tar  
25 deliveries, correct?



1 A. I believe that was what they told them. I mean, in general.  
2 There was a huge amount of discussion of dilution. That would  
3 be accurate.

4 Q. Let's look at this August 11, 1967 document. It's a  
5 document to Mr. Paul Smith from Helmut Wakeham.

6 A. I see that.

7 Q. And Mr. Paul Smith, you understand for a while he was  
8 general counsel of Philip Morris, Incorporated?

9 A. You know, I just don't recall his title. I know who  
10 Dr. Wakeham is.

11 Q. Do you recall that Dr. Wakeham was the vice president of  
12 Research and Development for a long period of time at Philip  
13 Morris?

14 A. I know he was the senior research -- one of the senior  
15 research and development people at Philip Morris and for a long  
16 period of time.

17 Q. And the memorandum in 1967 is titled: Plastic Dilution  
18 Tipped Parliament. Do you see that?

19 A. I see that.

20 Q. And if we look at the first paragraph Dr. Wakeham is telling  
21 Mr. Smith, "Two tests conducted at Product Opinions Laboratories  
22 demonstrate that in smoking a dilution filter cigarette, the  
23 smoker adjusts his puff to receive about the same amount of  
24 undiluted smoke in each case."

25 Do you see that?

1 A. I do see that.

2 Q. And then just below the tables Dr. Wakeham goes on to say,  
3 "In the smoking machine the puff volume is constant so that with  
4 dilution the quantity of equivalent undiluted smoke delivered to  
5 the Cambridge filter is reduced. Not so with the human smoker  
6 who appears to adjust to the diluted smoke by taking a larger  
7 puff so that he will still get about the same amount of  
8 equivalent undiluted smoke."

9 Do you see that, sir?

10 A. I do.

11 Q. Then if we look at Dr. Wakeham's conclusion on the next  
12 page, he states, "The smoker is thus apparently defeating the  
13 purpose of dilution to give him less smoke per puff."

14 Do you see that?

15 A. I see that.

16 Q. He goes on to say, "He is certainly not performing like the  
17 standard smoking machine and to this extent the smoking machine  
18 data appear to be erroneous and misleading. It has probably  
19 always been so for diluted smoked cigarettes, whether dilution  
20 is obtained by porous paper or holes in the filter."

21 Do you see that, sir?

22 A. I do.

23 Q. And then if we can look at U.S. Exhibit 20348. This is  
24 another document that is in evidence. The court has seen it  
25 before. I just want to run quickly through one point.

1                   And you see, sir, that this is a September 17, 1975,  
2     document from Barbro Goodman to Mr. Leo F. Meyer. Do you see  
3     that?

4     A. I don't have the document yet, but I see it on the screen.

5     Q. We will get you one.

6                   (Pause) Do you have it before you, sir?

7     A. I do now, yes.

8     Q. And we see that the subject of the memorandum is: Marlboro,  
9     Marlboro Lights study delivery data. Do you see that?

10    A. I see that.

11    Q. Now, sir, I want to skip ahead to the conclusion which  
12    starts at the bottom of page 2 of the document.

13    A. I do see that.

14    Q. And, sir, have you seen this document before in other cases?

15    A. I've seen this before, yes.

16    Q. So you understand that this is referring to the human smoker  
17    simulator studies which we talked about briefly last week?

18    A. Yes.

19    Q. Okay. At the bottom of page 2, Barbro Goodman writes, "The  
20    smoker data collected in this study are in agreement with  
21    results found in other project study. The panelists smoke the  
22    cigarettes according to physical properties, i.e., the dilution  
23    and the lower RT Marlboro Lights caused the smokers to take  
24    larger puffs on that cigarette than on Marlboro 85s. The larger  
25    puffs, in turn, increased the delivery of Marlboro Lights

1       proportionally. In effect, the Marlboro 85 smokers in this  
2       study did not achieve any reduction in smoke intake by smoking a  
3       cigarette, Marlboro Lights, normally considered lower in  
4       delivery."

5                    Do you see that, sir?

6       A. I see that.

7       Q. And you understand RTD refers to resistance to draw?

8       A. Yes, I believe that's correct.

9       Q. Now, sir, moving ahead to -- toward the end of the Barclay  
10      controversy, you referred in your testimony, and we talked a  
11      little bit the other day, about the 1983 FTC request for comment  
12      concerning the FTC test method. Do you recall?

13      A. I do recall that.

14      Q. Okay. And the FTC specifically asked whether the FTC should  
15      be examining smoker compensation. Do you recall that?

16      A. I'm sorry. Which date was that?

17      Q. Pardon?

18      A. Which date?

19      Q. In the 1983 Federal Register notice.

20                    If we look on page 110 of your testimony. Toward the  
21      bottom there, you quote JD Exhibit 4149, when the FTC asked in  
22      its Federal Register notice whether it should examine smoking  
23      behavior, such as hole blocking and whether smokers used  
24      higher-tar cigarettes differently than lower-tar cigarettes.

25                    Do you see that, sir?

1 A. I do.

2 Q. And, sir, would you agree that the companies uniformly told  
3 the FTC that the FTC test should be retained and that the FTC  
4 should not examine the question of whether smokers use  
5 higher-tar cigarettes differently than lower-tar cigarettes?

6 A. Well, no. I mean, three of the tobacco companies  
7 recommended that the FTC test method be changed.

8 Q. Okay. Understood.

9 And the change that the companies wanted was simply to  
10 account for the special unique design of a Barclay-type  
11 cigarette; correct?

12 A. Those were some of the specific -- that was a specific  
13 recommendation by three of the companies.

14 Q. In terms of the actual protocol of the FTC test and whether  
15 or not it would be overhauled to take account of the potential  
16 for smoker compensation, all of the companies stated that the  
17 FTC test protocol should essentially be retained in its current  
18 format; correct?

19 A. For various reasons, I believe that's generally correct.  
20 I'd have to go back and take a look because I just don't  
21 remember -- I don't remember the specific language they used.

22 I mean, other people, obviously through that public --  
23 that public announcement, such as the American Thoracic Society  
24 and the American Lung Society, put in extensive papers quoting a  
25 variety of people, I believe including Dr. Benowitz, pointing

1 out compensation issues and making suggestions also.

2 Q. But the defendants' suggestions on that question was that  
3 the FTC shouldn't investigate or adjust the FTC test to take  
4 account of the phenomenon of smoker compensation; correct?

5 A. Well, with the -- I mean, they did in a sense that they did  
6 suggest that the holder should be changed because that was a  
7 compensation issue.

8 I guess is your question, did they suggest beyond that?  
9 And I don't recall them off the top of my head suggesting things  
10 should be changed beyond that specific problem.

11 Q. And certainly you don't -- you don't recall, sir, do you,  
12 presenting any evidence or seeing any evidence that the FTC test  
13 should be -- strike the question.

14 You certainly didn't present any evidence and haven't  
15 seen any evidence, have you sir, suggesting that the tobacco  
16 companies in their comments in the 1983 Federal Register notice  
17 stated that the FTC test should be modified because, for  
18 example, smokers use higher-tar cigarettes differently from  
19 lower-tar cigarettes?

20 A. I guess I just don't understand that. Part of the -- a big  
21 part of the issue in Barclay was that they were using Barclay  
22 cigarettes to block the channels on the outside. I mean, that  
23 is making adjustments. That is smoker compensating.

24 So that was the specific recommendation that three of  
25 the companies had. I mean, that is compensation, and that's

1 compensation due to consumer behavior when they are using the  
2 cigarette.

3 Q. Okay. But, sir, my question is the FTC also asked the  
4 general question, do they not, do smokers of higher-tar  
5 cigarettes use those cigarettes differently from low-tar  
6 cigarettes; correct?

7 A. I believe that's correct.

8 Q. And in response to that, the companies didn't suggest that  
9 the FTC modify -- strike the question.

10 In response to that question, the FTC -- the tobacco  
11 companies didn't, or -- I'm sorry.

12 The response to that question the tobacco companies,  
13 none of them, suggested the FTC should in fact examine the  
14 question of smoker compensation and answer -- and didn't provide  
15 an answer to the question whether smokers used higher-tar  
16 cigarettes differently than lower-tar cigarettes?

17 MR. WEBB: Your Honor, I'm going to object on the  
18 grounds twice this witness has told Mr. Goldfarb he doesn't  
19 remember exactly what they said.

20 If he wants to show him what they said, I don't have  
21 any objection to that. But I object to the to the form that the  
22 witness twice has said he doesn't remember exactly what the  
23 company said in response that.

24 THE COURT: Sustained. And he's also pointed out some  
25 other things. But in any event, go ahead, Mr. Goldfarb. The

1 objection is sustained.

2 BY MR. GOLDFARB:

3 Q. Now, again sir, in response to this 1983 FTC request, the  
4 defendant tobacco companies didn't tell the FTC anything about  
5 nicotine addiction or nicotine driving smoker compensation;  
6 correct?

7 A. No. I mean they clearly recognized compensation. To the  
8 best of my recollection, I don't recall -- although other people  
9 were pointing out nicotine at this time to the FTC -- I don't  
10 recall the cigarette companies specifically stating the specific  
11 point that you're making here, I guess, which is with regard to  
12 nicotine.

13 Q. Sir, you haven't looked to see what the tobacco companies  
14 chose not to submit to the FTC on the question of whether  
15 smokers used high-tar cigarettes differently from lower-tar  
16 cigarettes; correct?

17 A. For the purpose of this case, I cited what they showed the  
18 FTC. I've seen other things, but --

19 Q. But I'm asking you for purposes of this case.

20 A. For purposes of this case, I didn't list those on my relied  
21 upon list. I've seen stuff.

22 Q. You haven't offered any opinions about it; correct?

23 A. Well, no, just the FTC is truly affected what the cigarette  
24 companies have been able to do here.

25 Q. Now, sir, moving on to the 1997 FTC request for comment.



1 You discussed that at pages 125, 126 of your testimony.

2 A. Yes. Let me just go back and take a peek at that, but that  
3 sounds about right. Yes.

4 Q. And again in 1997 the FTC put out a request for comment,  
5 correct, and asked a series of questions that it was interested  
6 in getting some feedback on that generally went to the FTC test  
7 method and whether it should be -- it should be modified;  
8 correct?

9 A. That was part of what they were asking about, that would be  
10 correct.

11 Q. And you state on page 126 of your testimony that the FTC  
12 received comments from -- and I'm looking at line 14 on page  
13 126 -- that the FTC received comments from various sources,  
14 including public health agencies; correct?

15 A. Yes.

16 Q. Now I noticed that you didn't mention or discuss any  
17 comments from the defendant tobacco companies in your testimony,  
18 do you?

19 A. At this point I don't -- you know, I just don't recall.  
20 Just take a quick look just to be sure I'm being accurate here.

21 (Pause) It is correct that I do not state it here and  
22 I'm not sure whether I state it elsewhere.

23 Q. Well, as you sit here and review your testimony, sir, you  
24 can't recall even mentioning that the defendant tobacco  
25 companies responded to the 1997 FTC request, can you?

1     A. You know, they -- I don't think I discuss it here is what  
2     I'm saying. I think that's correct.

3             THE COURT: But your testimony is that in 1997 when the  
4     FTC asked for comments, public health entities, contrary to  
5     their prior position, urged the Commission not to revise the FTC  
6     method. Is that right?

7             THE WITNESS: Oh, that's absolutely correct, Your  
8     Honor. Could I explain?

9             THE COURT: Yes. And let me ask you an additional  
10    question.

11            Am I accurate in saying that this was a reversal of  
12    their position?

13            THE WITNESS: I'm not -- well, they had pointed out  
14    before the problems with the FTC test method. The FTC test  
15    method was not uniformly -- there were not that many  
16    recommendations to uniformly get rid of it.

17            In fact, even Monograph 7 stated that they believed  
18    there was compensation, but it wasn't full, and that was as  
19    recent as 1994.

20            So, people were pointing out a lot of problems with the  
21    cigarette companies and the public health, you know, for a while  
22    now and some from the very beginning.

23            And what happened was the FTC said, Okay, should I  
24    revise this? And then the basic message from the FDA and others  
25    was, "Look. We need to look more carefully at this because we

1       don't know exactly how you should be revising the test method.  
2       So put it on hold until we can figure out what we think is the  
3       best recommendation."

4               That's, in effect, what they told the FTC.

5       BY MR. GOLDFARB:

6       Q.   Okay, sir.  But it is true that in responding -- the tobacco  
7       companies did, in fact, respond to the 1997 request for comment;  
8       correct?

9       A.   That's correct.

10      Q.   And if we look at -- let's just look quickly at JD  
11      Exhibit 040038.

12             Dr. Langenfeld, do you recognize this to be the  
13      September 12, 1997, request for public comment from the FTC that  
14      we've been discussing?

15      A.   I've looked at a lot of them.  I believe this is the one,  
16      yes.  If I could just take a quick glance and see.

17             (Pause)  Yes, this is it.

18      Q.   And if we could just highlight the whole top of the page.

19             You see that the FTC asked a series of questions about  
20      cigarette descriptors in the bottom of the left column and then  
21      on to the, for the rest of the FTC notice.

22      A.   Yes, that would be accurate.

23      Q.   And they asked about whether there's a need for official  
24      guidance with respect to the terms used in marketing lower rated  
25      cigarettes and some other information.  And I will reread these

1        questions, but I just want to orient the court so that when we  
2        look at the tobacco companies' response, which we will do now,  
3        which is U.S. Exhibit 88618, it's clear what the tobacco  
4        companies were responding to.

5                    Have you been given a copy, sir?

6        A.    88618? I do have it, yes.

7        Q.    And you see up top, that these are in fact the comments of  
8        Philip Morris, Incorporated, R.J. Reynolds Tobacco Company,  
9        Brown & Williamson Tobacco Corporation, and Lorillard Tobacco  
10       Company on the proposal entitled FTC Cigarette Testing  
11       Methodology.

12                   And you see there's a reference, the request for public  
13       comment. Do you see that. Sir.

14       A.    I do.

15       Q.    And the stamp of the Federal Trade Commission in the upper  
16       right indicates it's February 1998 that the comments were  
17       submitted?

18       A.    It's a little hard to read, but I believe that's correct.

19       Q.    Is that consistent with your recollection of when the  
20       comments were submitted?

21       A.    That is consistent. That would be true.

22       Q.    Now, sir, I want to jump ahead, please, to page 95 of the  
23       document. It's actually the last page.

24       A.    That will make it a little easier. Then I'm going to have  
25       to deal with the clip. Just bear with me for a second.

1 (Pause) This is page 95. I am at page 95 now.

2 Q. Okay. And in the italics under number 2 you see that the  
3 defendants reprinted the question of the FTC before responding.  
4 Do you see that?

5 A. Yes.

6 Q. And the question reads: "What data, evidence or other  
7 relevant information on consumer interpretation and  
8 understanding of terms, such as ultralow tar, ultra-light, low  
9 tar, light, medium, extra light and Ultima as used in the  
10 context of cigarettes exists? Do consumers believe that they  
11 will get significantly less tar from cigarettes described as  
12 light or low tar than from regular or full-flavor cigarettes?  
13 And do they believe they will get significantly less tar from  
14 cigarettes described as ultralow tar or ultra-light than from  
15 light or low-tar cigarettes? Do the descriptors convey implied  
16 health claims?"

17 That was the question the FTC asked; correct?

18 A. Yes, sir.

19 Q. And the manufacturers responded, "The manufacturers believe  
20 that consumers choose light or ultraproducts for a variety of  
21 reasons, including lighter flavor, lighter taste, less menthol,  
22 or other flavor, taste, and smoother smoking characteristics.  
23 Some consumers may choose such products for other reasons. The  
24 manufacturers do not intend the descriptors to convey any level  
25 of safety with regard to their products."

1                   Do you see that, sir?

2       A.   I see that.

3       Q.   Now, in their response the defendants don't say anything  
4       about wanting to get lower FTC tar -- excuse me -- to get lower  
5       tar and nicotine levels from light or low-tar cigarettes;  
6       correct?

7       A.   Well, there's no specific -- I mean it's a pretty general  
8       discussion. I mean, smoother smoking characteristics typically  
9       reflect higher -- lower tar contents.

10      Q.   But the tobacco companies don't say in response to the FTC,  
11      some people smoke cigarettes sold as light or ultra-light  
12      because they want to get less tar; correct?

13      A.   Well, with the exception -- they don't say that  
14      specifically. They do say that as a general statement consumers  
15      may choose these products for other reasons.

16      Q.   So from the documents that we looked at the other day,  
17      defendants clearly had information internally that stated  
18      explicitly that smokers smoke lower FTC yield products that are  
19      labeled as light or low tar in order to get less tar; correct?

20      A.   I'm just not thinking about what specifically you're  
21      referring to. I'm sorry.

22      Q.   Okay. Well, if we -- I don't want to go back to documents  
23      that we covered the other day, but do you recall discussing  
24      numerous internal marketing documents that talked about how  
25      consumers interpreted brand descriptors like light and low tar?

1     A. Yes. There were some -- I mean, internal documents the FTC  
2     discussed, part of it was for the -- and the FTC pointed out  
3     both -- that it was for light low tar, for the taste, and then  
4     they also talked about, as you will recall, smoker anxiety where  
5     they talked very specifically -- and that was back in the  
6     '60s -- about consumers perceiving that they were safer. I  
7     don't recall them saying anything about the manufacturers  
8     intending to market them as safer, particularly.

9             So there's some -- you know, some of that is -- the FTC  
10    looked at some documents and thought that they implicitly had  
11    some type of health aspect to it, but it was always tied to the  
12    FTC test method.

13    Q. Sir, this answer that the defendants -- and I'm asking you  
14    about what the defendants told the FTC. They didn't even  
15    mention tar or lower tar doses as a reason why people might  
16    smoke cigarettes sold as low tar light cigarettes; correct?

17            MR. WEBB: Objection. That's been asked and answered.  
18    He just asked that question two minutes ago in the transcript  
19    and got an answer.

20            THE COURT: Sustained.

21    BY MR. GOLDFARB:

22    Q. Dr. Langenfeld, the defendant companies didn't say anything  
23    about -- in this answer -- about the fact that consumers choose  
24    light and low tar cigarettes because they think they present  
25    health benefits; correct?

1 A. No. I mean, what they state here is that they think the  
2 health warnings clearly indicate on any cigarette that there's  
3 no such thing as a safer or safe cigarette. But you're right,  
4 they don't say specifically what you asked me about.

5 Are we going to move on to another document? I'm  
6 getting a little bit of a pile here. I just want to know if I  
7 can put these over here.

8 Q. No. (Overtalking)

9 A. We are not finished with that?

10 Q. No. Okay, sir, I just want to backtrack a second to be sure  
11 I have a clear answer.

12 In U.S. Exhibit 85009 that we looked at the other day.

13 A. Okay. That will take me a moment to locate it.

14 Q. You know what? I can put it up -- I'm just going to refer  
15 you back to -- if we look at -- it's Bates number 8480. We're  
16 going to put it up on the screen for you, but you can hunt for  
17 it if you want. I'm just going to refer you back to the  
18 sentence that you testified about the other day.

19 A. I do recall this document. I would like to, if possible,  
20 have it in front of me.

21 (Pause)

22 I found it.

23 Q. Let's look at the bottom -- the first sentence of the bottom  
24 paragraph on 8480.

25 A. 8480. Okay, I'm on 8480.



1 Q. Toward the bottom, sir, do you see the part of the document  
2 that we discussed the other day where Philip Morris was given  
3 the information from focus groups that, "Those who are currently  
4 smoking lights do so because they are, quote, better for you,  
5 end quote, than full-flavor cigarettes. Although some  
6 experience that they actually smoke more lights, they perceive  
7 they are cutting down and it is an alternative to quitting,  
8 which most cannot accomplish."

9 Do you see that, sir?

10 A. I see that.

11 Q. Certainly the tobacco companies in response to FTC in 1998  
12 didn't say that smokers smoke light cigarettes because they  
13 perceive them to be an alternative to quitting; correct?

14 A. They did not state that, and they did not point out this one  
15 focus group document that was from 1978.

16 Q. Okay. And they didn't say anything to the FTC like, "Those  
17 who are smoking currently smoking lights do so because they are  
18 better for you." Correct?

19 A. I don't recall them stating that, but then of course they've  
20 never said that in their advertisements or their public  
21 statements anyway.

22 Q. But they understood that that's what consumers were  
23 perceiving; correct, sir?

24 A. Well, you know, what -- I mean, people were generally aware  
25 that a number of smokers switched because of the FTC's

1 encouraging them to smoke lighter cigarettes because the  
2 perception was they were healthier, and the cigarette companies  
3 I'm sure were aware of that.

4 Q. Okay. Let's turn to -- again back to 88618, the big one.

5 A. I'm there.

6 Q. Another question the FTC asked in 1997 in its request for  
7 comment was, "Do consumers use descriptors rather than the FTC  
8 tar and nicotine ratings as their primary source of information  
9 about the tar and nicotine yields of different cigarette brands?  
10 What data or evidence examines this question? If consumers use  
11 descriptors as their primary source of information about tar and  
12 nicotine yields, what implications does this have for the  
13 proposed revisions to the test method and the advertising  
14 disclosure?"

15 And the defendant tobacco companies answered, "As noted  
16 in response to the last question, the reasons consumers choose  
17 lower yield products are varied and complex. The manufacturers  
18 are not aware of evidence that consumers use descriptors in lieu  
19 of the FTC numbers as their primary source of information about  
20 the tar and nicotine yields of different brand styles."

21 Do you see that, sir?

22 A. I do.

23 Q. Okay. And do you recall, sir, last week we looked at  
24 documents where the tobacco companies had information in their  
25 files that said exactly that? That consumers don't understand,

1 or don't know what the tar and nicotine yields are and rely on  
2 the brand descriptors used by the companies to signal the -- to  
3 signal for them the relative FTC tar yields?

4 A. I think it's accurate that we looked at documents last week  
5 that tied the tar and nicotine -- the descriptors to tar and  
6 nicotine levels per the FTC method.

7 Whether they were the only or the primary reason --  
8 which is I think what the sentence says, if I'm understanding  
9 this correctly -- I don't know that those -- that those  
10 documents we looked at are inconsistent with this particular  
11 statement.

12 Q. Okay, sir. But here the defendant -- they say, "The  
13 manufacturers are not aware of evidence that they used  
14 descriptors in lieu of the FTC numbers as their primary source  
15 of information." Do you see that?

16 A. Yes, as their primary source of information, that would be  
17 correct.

18 Q. Let's look just quickly, sir, at U.S. Exhibit 22217.

19 A. Is this one I've seen before or is this new?

20 Q. No. We will be handing it to you.

21 A. Very good.

22 Thank you.

23 Q. Okay, sir. If we look up top, this is a 1996 interoffice  
24 correspondence memorandum from Sherry Teitelbaum to Jodie  
25 Sansone and Rebecca Gordon of Philip Morris USA. Do you see

1       that?

2       A.   I do see that.

3       Q.   The subject is Merit Ultima Qualitative Research Final  
4       Report?

5       A.   I see that it says that.

6       Q.   This is at least a year and a half before the defendant  
7       manufacturers submitted their comments to the FTC in 1998;  
8       correct?

9       A.   I believe -- yeah, I believe your timing is about right.

10      Q.   And then if we look at the second paragraph on that first  
11      page under the Summary of Key Findings.

12                 The summary of the research that Philip Morris had  
13      commissioned states, "Consumers do not appear to be generally  
14      aware of the lowest category, as we define it.  Few were able to  
15      discuss specific tar levels of their cigarettes."

16                 Do you see that, sir?

17      A.   Yes.

18      Q.   At the end of the last sentence in that paragraph states,  
19      "Consumers tended to use the words light or lower when  
20      discussing tar levels of their brands."

21                 Do you see that, sir?

22      A.   I do.

23      Q.   And the tobacco companies, in responding to the FTC in 1998,  
24      didn't provide any information of that sort; correct?

25      A.   Well, once again, I'm not quite sure reading this on its

1 face whether it's inconsistent with the statement that they  
2 made.

3 Did they specifically state the words on this page to  
4 the FTC? Obviously not.

5 Q. Okay. And, sir, finally if we look at page 89 --

6 A. Of?

7 Q. I'm sorry. 88618.

8 A. Yes, I'm there.

9 Q. Okay. The FTC also asked in this '97 remarks, or -- excuse  
10 me -- its 1997 request for comment, under 5A, toward the bottom,  
11 "What available evidence exists concerning how consumers view  
12 cigarettes with relatively low tar and nicotine ratings and  
13 their perception of the relative risks of smoking such  
14 cigarettes rather than full-flavor cigarettes?"

15 Do you see that, sir?

16 A. I do.

17 Q. The defendants' response to that question was, "The  
18 manufacturers are unaware of evidence concerning such consumer  
19 views and perceptions except to the extent that such evidence is  
20 presented in the report of the NCI Expert Committee."

21 Do you see that?

22 A. I see that.

23 Q. And do you understand the report of the NCI Expert Committee  
24 to refer to the document that's also known as Monograph 7?

25 A. Yes. Yes, that's my understanding.

1 Q. And, sir, if I told you that none of the statements in the  
2 internal documents that we've looked at over the past few days  
3 or any of the internal statements of the defendants at all were  
4 submitted by the defendants to the NCI Expert Committee, you  
5 would have no basis to disagree with me on that, would you?

6 A. No.

7 MR. GOLDFARB: No further questions, Your Honor.

8 THE COURT: Mr. Webb.

9 MR. WEBB: Yes, Your Honor.

10 (Pause)

11 MR. WEBB: May I proceed, Your Honor?

12 THE COURT: Yes.

13 REDIRECT EXAMINATION

14 BY MR. WEBB:

15 Q. Doctor, let me pick up where Mr. Goldfarb left off.

16 You do understand that you're testifying as an expert  
17 witness in a fraud case? You understand that much, anyway,  
18 about the charges in this case?

19 A. Yes, I do.

20 Q. As far as whether the tobacco companies have committed fraud  
21 in connection with the way they've advertised tar and nicotine  
22 levels, the way they used descriptors, the way that they have  
23 followed the FTC test method over the last 30 years or so; if we  
24 tried to bring it up to today as to where we are today --  
25 Mr. Goldfarb just went through this comment process that began

1 in 1997 as far as whether the FTC should change some of these  
2 things. Is that correct?

3 A. I believe that's correct, yes.

4 Q. That's 8 years ago; is that correct?

5 A. I believe that's correct, yes.

6 Q. And could I have page 126 called up on the screen, of his  
7 trial testimony, that Mr. Goldfarb just showed him?

8 As that's coming up on the screen, Doctor. As far as  
9 where we are today, has the FTC or our government done anything  
10 to change the way we advertise tar and nicotine levels in  
11 advertising today?

12 A. No.

13 Q. Have they done anything to change the way descriptors are  
14 used in advertising today?

15 A. No, they have not.

16 Q. Have they done anything to change the FTC test method today?

17 A. No, they have not.

18 Q. And they've been studying it for the last 8 years since that  
19 comment period began. Is that fair to say?

20 A. Yes, and they clearly studied even before then.

21 Q. I know they did, but let's just take the last 8 years.

22 A. Okay.

23 Q. What you pointed out here that, as Mr. Goldfarb put up on  
24 the screen here, that line 13 through line 18, that 8 years ago  
25 the public health community submitted comments to the FTC and

1 told the FTC to postpone revisions until a broader review of  
2 unresolved scientific issues surrounding the system could be  
3 addressed. That's the position of the public health community  
4 8 years ago. Is that correct?

5 A. That was the position then, yes.

6 Q. As far as you know today, is that still the position of the  
7 public health community now 8 years later?

8 A. Yes. I mean, the FTC has gone back and asked for more  
9 information and asked the NCI to make some specific  
10 recommendations, and they haven't done it yet.

11 Q. In fact, let's talk about that. So in 1997 the public  
12 health community told the FTC, "Hold off. Don't change any of  
13 this stuff yet, and let's study this a little more."

14 That was the status in 1997; is that correct?

15 A. I think that's accurate, yes.

16 Q. Then we come to 2001, and we have this other monograph  
17 published call Monograph 13 by NCI; is that correct?

18 A. Yes.

19 Q. And then at the of Monograph 13, that same day or the next  
20 day, the FTC issued a press statement as to what they thought  
21 they should do; is that correct?

22 A. Yes.

23 Q. And at that time the FTC turned to another part of our  
24 government, to NCI and HHS who had published Monograph 13; is  
25 that correct?



1 MR. GOLDFARB: Objection, leading.

2 THE COURT: Technically, sustained, but it's  
3 introductory. All of this information is in the record.

4 Go ahead, Mr. Webb.

5 BY MR. WEBB:

6 Q. Tell the court what did -- who did the FTC expect and want  
7 to study this issue so that someone would get back to them and  
8 tell them what to do?

9 A. Well, from the science part of this, clearly the FTC looked  
10 to NCI and HHS for that.

11 Q. Was a working group set up in the year 2001 by HHS?

12 A. Yes, certainly.

13 Q. And that working group -- that's three and a half years ago;  
14 is that correct?

15 A. Pretty much, yes.

16 THE COURT: Excuse me. I want to be clear on one  
17 thing.

18 Did the FTC make the request to NCI in 1997? I thought  
19 you said that.

20 THE WITNESS: They made -- my recollection, they made a  
21 general request for information, and then I believe they  
22 followed up with a specific request, boy, in 1998 or something,  
23 '99. And then the report finally came out in 2001, if I'm  
24 getting the dates correct. I could be a little off.

25 THE COURT: Go ahead, please.

1 BY MR. WEBB:

2 Q. But when the report finally came out, the report -- I'm  
3 sorry.

4 When Monograph 13 was finally published in 2001, the  
5 FTC issued a press statement indicating they were waiting --  
6 that NCI and HHS were going to set up a working group and get  
7 back to the FTC; is that correct?

8 MR. GOLDFARB: Objection, leading.

9 THE COURT: Well, I'm going to overrule those kinds of  
10 objections in that these are basic facts which have been in the  
11 record for a long time, Mr. Goldfarb.

12 Go ahead, please.

13 MR. WEBB: Thank you, Your Honor.

14 BY MR. WEBB:

15 Q. On the day that -- on the day in 2001 that Monograph 13 was  
16 issued, who did the FTC say was it was going to look to, to get  
17 guidance on what to do?

18 A. Clearly it went back to look at HHS and NCI.

19 Q. And a working group was to be performed by that group, NCI;  
20 is that correct?

21 A. According to FTC in its press release, yes.

22 Q. By the way, can you tell from the expert work you've done in  
23 this case whether that working group ever has met?

24 A. You know, I'm not aware of any evidence to indicate that it  
25 has, to be honest.

1 Q. And today, three and a half years later, as far as you can  
2 tell, is the FTC still waiting for this other part of  
3 government, HHS and NCI, to get back to them and tell them what  
4 to do and make suggestions?

5 A. Yes, as far as -- I mean, you can look at the deposition of,  
6 for example, Lee Peeler. Now, that was taken back in 2002. But  
7 that was the indication then, and as far as I can tell, it's  
8 still what they are doing. They are waiting for some  
9 recommendation as to what to do with the testing system.

10 Q. By the way, based on your review of all of the FTC-related  
11 evidence that you told the court you reviewed as an expert  
12 witness in this case, whenever the FTC comes out with some new  
13 policy or procedure or regulation regarding what to do with  
14 these tar and nicotine levels, what test to use, what  
15 descriptors to use, have the companies always just followed and  
16 done what the FTC told them to do?

17 A. Well, they put in comments, but they followed what the FTC  
18 has in effect mandated here.

19 Q. And if the FTC decides tomorrow or 5 years from tomorrow to  
20 change the procedures in advertising tar and nicotine using  
21 descriptors, what test method to use, based on what you've seen,  
22 do you have any reason to believe the companies would do  
23 anything other than follow what the FTC tells them to do?

24 MR. GOLDFARB: Objection, calls for speculation.

25 THE COURT: Sustained.

1 BY MR. WEBB:

2 Q. Now, Doctor, a lot of your cross-examination was focused or  
3 asked a lot of questions about Barclay and compensation, was  
4 asked of you last Thursday, and then Mr. Goldfarb spent a good  
5 majority of his time today on that subject matter. So I take it  
6 you have that generally in mind.

7 A. I do.

8 Q. I want to ask you some questions about that.

9 As far as whether -- as you look at the entire FTC  
10 investigation of Barclay, how long did that go on? From  
11 approximately when to when?

12 A. 1981 to 1985.

13 Q. And during that 4 years -- during that 4 years has the FTC  
14 studied the issue of Barclay and compensation? I want you to  
15 explain to the court -- give the court an overview, how big of  
16 an issue was compensation in the Barclay FTC investigation?

17 A. Well, it was, frankly, the whole point of the investigation,  
18 and that in fact smokers who smoked Barclay would in effect  
19 compensate relative to the FTC test method.

20 Q. As far as what the FTC learned about compensation during  
21 that 4 years, can you please describe for the jury the different  
22 types of compensation-related issues the FTC looked at?

23 A. The different types of compensation issues?

24 Q. Yes.

25 A. Yes.

1           They looked at obviously the specific design of the  
2     Barclay that was different than other cigarettes.

3           They looked at vent hole covering. They looked at  
4     various aspects of filter compensation, tobacco treatments, you  
5     know, paper, the porosity of paper.

6           They looked at and got numerous comments on all  
7     different aspects of, in effect, cigarette design and what the  
8     impact was on compensation.

9     Q. And as the FTC was studying this issue of compensation for  
10    4 years did they have their own experts?

11   A. Oh, yes.

12   Q. Do you recall who they were or what their background?

13   A. Oh, there were three pretty eminent people there.  
14   Dr. Kozlowski, Dr. Gruin, and I think Dr. Beck, if I remember.  
15   I could be wrong on one of those names. They've used various  
16   people at various times. But they had three major -- they had  
17   three major well-recognized experts.

18   Q. Now, as far as showing the court the depth and the detail of  
19   information that the -- strike that.

20           I take it as far as the different sources that the FTC  
21   had to learn everything it wanted to learn about compensation,  
22   the tobacco companies were one source of information; is that  
23   correct?

24   A. That would be correct?

25   Q. What other sources?

1 A. Well, the FTC, because they hired these experts, they  
2 reviewed the submissions of the cigarette companies. They also  
3 looked at literature that existed out there.

4 For example, I think I mentioned this earlier, but as  
5 an example. I believe Dr. Kozlowski mentioned work by -- done  
6 by Dr. Benowitz. I mean, they went and they looked at a variety  
7 of different existing public sources that were out there.

8 Q. You mentioned Dr. Benowitz, and I don't know -- are you  
9 generally aware Dr. Benowitz has testified before this court in  
10 this case on his use of compensation?

11 A. Yes, I'm aware of that.

12 Q. Now, as far as the depth and the detail of the knowledge  
13 that the FTC acquired during the Barclay proceeding on  
14 compensation, did the tobacco -- did one of the tobacco  
15 companies actually hire Dr. Benowitz and submit an affidavit  
16 from him to the FTC?

17 A. Yes.

18 Q. What company hired Dr. Benowitz?

19 A. I believe it was Brown & Williamson.

20 Q. And can I have, Jamie -- let me call up tab 48. JD 55023.

21 Do you have that exhibit in front of you now, sir?

22 A. Yes.

23 If you just bare with me one second, I'm going to try  
24 to move some of these papers so I don't -- yes, I have that.

25 Q. If you go to the front page of that document, it says,

1 "Exhibits annexed to comments of Brown & Williamson Tobacco  
2 Corporation on the Federal Trade Commission's proposal to modify  
3 the official cigarette testing methodology. July 5, 1984." Is  
4 that correct?

5 A. I see that, yes.

6 Q. This is during the time period of Barclay; is that correct?

7 A. Yes.

8 Q. Now, as far as Dr. Benowitz is concerned, if you go to the  
9 page that is Bates stamped 1247 of this document, and we can see  
10 that B&W submitted to the FTC during Barclay Dr. Benowitz's  
11 article on smokers of low-yield cigarettes do not consume less  
12 nicotine.

13 Do you see that?

14 A. Yes, I do.

15 Q. Can you tell where this was published by looking at the  
16 document?

17 A. You know, my recollection is it's the New England Journal of  
18 Medicine.

19 Yes, you can actually tell by the second page, not this  
20 page.

21 Q. But if we look at what -- as far as what the tobacco  
22 companies were communicating to the FTC, one tobacco company was  
23 communicating to the FTC Dr. Benowitz's view of compensation.  
24 Is that correct?

25 A. Oh, clearly. And the FTC, as I indicated, noted it because

1 Professor Kozlowski I think referenced this specific article in  
2 the comments he submitted to the FTC.

3 Q. So, as far as the concept or this idea or theory that  
4 compensation may be complete and, therefore, low-delivery  
5 cigarettes will be of no or minimal benefit, that concept  
6 actually gets submitted to the FTC by none other than a tobacco  
7 company during Barclay; is that correct?

8 A. That would be correct. They provided this information from  
9 Dr. Benowitz, et al., yes.

10 Q. In fact, this is Dr. Benowitz's article where the FTC is  
11 told through his article, just as the court was told in this  
12 case: "Tobacco advertisements claim that low yield cigarettes  
13 have and deliver less tar and nicotine than higher-yield brands.  
14 Many physicians advise patients who cannot stop smoking to  
15 switch to low tar, low nicotine cigarettes, believing that they  
16 are safer. However, the figures for nicotine determined with  
17 the smoking machines used by the United States Federal Trade  
18 Commission and cited by cigarette manufacturers in  
19 advertisements are misleading. The FTC values do not reflect  
20 what is actually taken into the body of the cigarette smoker."

21 Dr. Benowitz goes on to talk about, "The ventilation  
22 characteristics of the filter as well as the number of puffs  
23 taken before a cigarette is discarded can be controlled to a  
24 substantial degree by the way in which the cigarette is held and  
25 smoked. Many smokers will alter their smoking behavior,



1       changing the number of cigarettes smoked, the method of puffing,  
2       and the depth of inhaling the smoke, to maintain a desired level  
3       of nicotine intake. For all these reasons, we questioned  
4       whether or not smokers of low-yield cigarettes truly consume  
5       less nicotine."

6               That's what he was looking at. Is that what he says  
7       there?

8       A. Oh, yes.

9       Q. In fact, in the abstract above, and I'll go to the  
10      conclusion, the conclusion of Dr. Benowitz communicated to the  
11      FTC just as he communicated to this court, "We conclude that  
12      smokers of low nicotine cigarettes do not consume less  
13      nicotine." That was his conclusion.

14     A. That's correct. That and his coauthors.

15     Q. And his coauthors.

16               Could we go to the next page of this document?

17               THE COURT: He's listed his coauthors; right?

18               THE WITNESS: Yes. If you look at the front, as  
19      typical, there are -- there are, what, several of them.

20               THE COURT: That's the usual practice in the scientific  
21      world, to list your coauthors, isn't it?

22               THE WITNESS: Yes, it is. Yes, it is. These type of  
23      things. If I could -- my experience in looking at these is  
24      economists tend to have fewer coauthors. These type of  
25      scientists tend to have more coauthors. I don't have a theory

1 as to why.

2 THE COURT: Go ahead.

3 BY MR. WEBB:

4 Q. If you could go to the last page of Dr. Benowitz's article,  
5 page 141, which is the third page of the article.

6 The FTC was told that Dr. Benowitz had concluded in  
7 summary, "We found that the tobacco in low-yield cigarettes does  
8 not contain less nicotine than higher-yield cigarettes and that  
9 smokers of these cigarettes do not consume less nicotine. The  
10 FTC cigarette testing data do not predict nicotine intake by the  
11 cigarette smoker. Advertisements from cigarette manufacturers  
12 suggesting that smokers of low-yield cigarettes will be exposed  
13 to less tar and nicotine are misleading. Patients who smoke  
14 cigarettes should be so advised."

15 And so as far as how much knowledge the FTC acquired  
16 during Barclay, the FTC acquired, at least according to  
17 Dr. Benowitz, that compensation is complete if you were to  
18 accept his view. Is that correct?

19 A. I think that's true, yes.

20 Q. Now --

21 THE COURT: Let me just follow up for a minute.

22 MR. WEBB: Yes. Do you want that back on the screen,  
23 Your Honor?

24 THE COURT: Did Dr. Benowitz take the position in that  
25 article that compensation was complete or was partial, if you

1       happen to know or remember?

2               THE WITNESS: Your Honor, I think that -- I don't think  
3       he -- if we could go back to the first page. I mean, he  
4       obviously doesn't say it's complete there, although he raised  
5       big issues about it.

6               But if you look at the abstract, in the last sentence  
7       in the abstract, he says, "We conclude that smokers of low  
8       nicotine cigarettes do not consume less nicotine." I think  
9       that's a pretty direct statement that he believes that smoking  
10      is -- compensation is complete. If I'm understanding what he's  
11      saying. I mean, he probably understands what he says better  
12      than I do, but that would be my reading of that.

13              THE COURT: Okay. Thank you.

14              Go ahead.

15      BY MR. WEBB:

16      Q. Now, as far as the depth of the compensation information  
17      that was made available to the FTC during the Barclay FTC  
18      investigation, was there actually a public court proceeding in  
19      this building before a United States District Court Judge in  
20      which the compensation issue and the Barclay cigarette was  
21      actually litigated?

22      A. Yes, actually there is -- or was, I should say.

23      Q. Could I have tab 38, which is JD 003926.

24      A. Thank you.

25      Q. Do you have that document in front of you, sir?

1 A. I do.

2 Q. And is this an opinion by Judge Gesell, a Federal District  
3 Court Judge for the District of Columbia?

4 A. To my recollection, it is. Yes, it is. I've confirmed it.  
5 It's shown on 982.

6 Q. As far as -- I'm not going to go through all of this, and  
7 the court has been shown this before. But as far as actually  
8 litigating this issue on whether compensation is complete, did  
9 Judge Gesell receive evidence from both sides on that issue?

10 A. Oh, yes.

11 Q. If you could go to the page of the opinion marked 984.

12 After this proceeding went forward, Judge Gesell states  
13 under the FTC rating system, "The FTC rating system has enjoyed  
14 almost universal acceptance for over a decade. Recently,  
15 however, the system has been subjected to criticism largely, but  
16 not entirely, in connection with the Barclay controversy.  
17 Seeking to defeat the present suit by demonstrating that the  
18 entire FTC rating system is itself misleading, B&W has presented  
19 to the court several cotinine studies."

20 Now let's go to the next page.

21 Judge Gesell concludes, "The evidence, however, is not  
22 sufficient to lead the court to hold that the FTC system is  
23 meaningless or deceptive.

24 "First, the Gori study does in fact validate the FTC  
25 system, at least to a certain extent, by demonstrating that a

1 positive relationship exists between nominal FTC ratings and  
2 blood levels of nicotine.

3 "Even if the levels of tar and nicotine differ by only  
4 80 to 40 percent, the difference has significant health  
5 implications, as Dr. Gori acknowledged in his testimony.  
6 Exactly how small a difference is of significance is impossible  
7 to determine given the current state of scientific knowledge,  
8 but it is possible that even very small differences might  
9 account for a significant number of early deaths across the  
10 nation."

11 Now, Doctor, in fact, if we go on -- anyway, I'm not  
12 going to go through this.

13 Judge Gesell concluded, based on what was presented to  
14 him, that he felt that compensation was not complete. Is that  
15 fair to say?

16 MR. GOLDFARB: Objection. I don't think the foundation  
17 was laid for either that Judge Gesell opined on that or that  
18 this witness is competent to testify on what Judge Gesell  
19 testified on the completeness of compensation.

20 THE COURT: First of all, Judge Gesell didn't testify.

21 Second of all, the evidence speaks for itself. I'm  
22 sorry, I misspoke myself. The opinion speaks for itself. And,  
23 as I think I ruled a long time ago in this case, the validity of  
24 that opinion and accuracy of that opinion is not before me here.

25 MR. WEBB: I agree with that. I'm not arguing with

1       that. I'm trying to just go into what knowledge did the FTC  
2       have on this compensation issue in light of the cross-  
3       examination that the government spent so much time on.

4       BY MR. WEBB:

5       Q. In fact, Jamie could I call on that page there, footnote 21.

6               As far as what Judge Gesell at least believed. In  
7       footnote 21, this opinion states, "The Benowitz study concluded  
8       that smokers of low nicotine cigarettes do not consume less  
9       nicotine. The Benowitz study however appears less reliable than  
10      the study performed by Dr. Gori, and the court has therefore  
11      according the Benowitz study relatively little weight."

12             At least that was his conclusion. Is that correct?

13      A. That's what he wrote. That's what the opinion says.

14      Q. He goes on in footnote 24 to expand upon the discussion in  
15      the next about the fact that even if compensation is partial and  
16      maybe almost complete, it could save a lot of lives. At least  
17      that was his conclusion.

18      A. Yes, and Dr. Bock I believe is one of the three FTC experts,  
19      independently hired experts. I may have misspoken earlier.

20             THE COURT: Isn't the percentage in that footnote 24,  
21      30 to 40 percent? Can you see that clearly?

22             THE WITNESS: Yes, I can see it. It says only 30 to  
23      40 percent.

24             THE COURT: And therefore -- and I know I did a double-  
25      take when Mr. Webb read it -- therefore, the percentage that

1 Mr. Webb read earlier in the opinion -- and I am almost positive  
2 that he read 80 to 40 percent -- is 30 to 40 percent. It's hard  
3 to read.

4 MR. WEBB: You could be right. I'll go back up and  
5 correct that if you want. I thought...

6 That is right. You're right. I read that as 80, and  
7 that's wrong. Thank you.

8 THE COURT: Are you done with this opinion?

9 MR. WEBB: Yes, I am.

10 THE COURT: All right. Let's take a break, everybody.  
11 Fifteen minutes, please.

12 (Recess began at 11:01 a.m.)

13 (Recess ended at 11:19 a.m.)

14 THE COURT: Mr. Webb, you think you're going to be able  
15 to finish your redirect before lunch?

16 MR. WEBB: I sure hope so. In fact, I'm going to make  
17 that my goal.

18 THE COURT: All right.

19 BY MR. WEBB:

20 Q. In order to meet that goal, I'm going to move. So, Doctor,  
21 I'm going to stick with the Barclay FTC investigation for a few  
22 more minutes, but I want to turn to a little different topic.

23 Do you recall being asked questions by the government  
24 during your cross-examination suggesting that the public was not  
25 aware of the Barclay dispute and did not know about this

1 compensation issue?

2 And I think you responded to the government's questions  
3 with those suggestions that you thought you had seen articles  
4 that actually had discussed the Barclay dispute.

5 Do you recall that testimony, generally?

6 A. Yes, I have, and to the point where some of them even made  
7 recommendations about how to avoid compensation. Yes.

8 Q. So, on -- well, let's go through -- let me start with --  
9 could I have tab 39, Jamie, which is JD 4372 called up on the  
10 screen if I could. And I'll get you a hard copy, Doctor, of the  
11 document.

12 A. Thank you.

13 Q. But as far as whether this was some deep dark secret in the  
14 FTC, what I have put on the screen this is a FTC press release,  
15 is it not?

16 A. Yes, it is.

17 Q. What is this relating to?

18 A. This, I believe, is relating to the Barclay investigation.

19 Q. Go ahead and look at document, the beginning of it.

20 This is announcing the action taken by the FTC, which  
21 the FTC says to the public on June 25, 1982, "Barclay cigarettes  
22 deliver more tar, nicotine and carbon monoxide than measured by  
23 the agency's current testing program, the Federal Trade  
24 Commission announced today. As a result, the commission  
25 informed Brown & Williamson Tobacco Corporation, manufacturer of



1     Barclay, that it cannot rely on the FTC test method to  
2     substantiate claims that Barclay delivers only 1 milligram of  
3     tar."

4             So this is being put into the public by none other than  
5     the Federal Trade Commission; is that correct?

6     A. Yes, and this is -- this, as it indicates here -- I've  
7     forgotten this specific news release -- but as it indicates  
8     here, this is by a unanimous vote of the commission. So this is  
9     the commission's official position.

10    Q. Now -- in fact, Jamie, can I go to the next page of the  
11    press release? Call up the next page.

12            The commission goes on to say to the public. "In a  
13    notice to be published to the Federal Register next week, the  
14    commission is asking for comments on how to modify the current  
15    testing methodology so that Barclay cigarettes and other such  
16    designs may be tested. The commission is also asking for  
17    comments on how to deal with a related problem. The tendency  
18    for the delivery of tar to determined by smoking techniques, for  
19    example, whether smokers cover the ventilation holes with their  
20    fingers."

21            It goes on to point out that there's other cigarettes  
22    that may be of the same type as Barclay.

23            So, this issue about Barclay and this compensation  
24    issue, how much publicity did you see in doing your work that  
25    was generated by the Barclay and this compensation controversy?

1 A. It was a great deal of publicity associated with this,  
2 absolutely.

3 Q. Let me just show a couple of quick examples.

4 Jamie, can I have tab 40 which is DJ 42003.

5 I think what you will see, Doctor, is that this is I  
6 believe a Washington, DC television station, and we see a  
7 transcript here of -- on the same date of the press release,  
8 they are publicizing the Barclay dispute. Is that fair to say?

9 A. I think that is fair to say, yes.

10 Q. And could I also then use another example. Tab 41, which is  
11 JD 3494, and this is a Consumer's Report article dated in  
12 January of 1983 entitled, "The ultralow tar gimmick. How to  
13 turn a health hazard into a marketing success."

14 Do you see that?

15 A. Yes, I see that.

16 Q. And I'm not going to read this whole document off, but I  
17 think you mentioned this in response to Mr. Goldfarb's question  
18 last week, that you recalled this article; is that correct?

19 A. Yes, I did.

20 Q. And does this article go into some detail about the Barclay  
21 dispute and about the whole compensation issue itself?

22 A. Yeah, there's no question about that. That's what the  
23 article is about. And, you know, I think it's pretty -- well, I  
24 think it's a very clear description of what was going on at the  
25 time.

1 Q. And it explains how smokers compensate; is that correct?

2 A. Yes, it does.

3 Q. And so this -- here, let me show you another. As far as  
4 this compensation issue and whether the public was aware about  
5 it.

6 Jamie, I'd like to play -- this is a Dr. Benowitz  
7 network news interview on July 20, 1983. It's tab 32, Jamie,  
8 and it's JD 21723, and it's tab 32.

9 If I could play that Dr. Benowitz network news  
10 interview.

11 (Videotape being shown.)

12 Q. Now, that's 22, 23 years ago. This dispute about Barclay  
13 and compensation, has it been in the public domain since  
14 22 years ago?

15 A. Oh, at least. And, as I said, at least the FTC had noted  
16 and written about this even before the Barclay investigation.

17 Q. Now, Doctor, let me go to a little different topic. I want  
18 to talk about descriptors for a few minutes.

19 During your cross-examination the government showed you  
20 some Consumer Research results regarding low-delivery cigarettes  
21 and asked you some question, both last Thursday and again today,  
22 as to whether descriptors in cigarette advertising, such as low  
23 tar, lights, ultra lights, you were asked questions as to  
24 whether those type of descriptors communicate health information  
25 to consumers.

1                   Do you recall those questions by the government?

2       A.   Yes.

3       Q.   Doctor, based on the work you've done in this case, if  
4       communications in cigarette advertising about tar and nicotine  
5       levels and about brand descriptors, if that type of  
6       communication is actually communicating information to consumers  
7       regarding less hazardous cigarettes, is that in fact what the  
8       FTC has stated it wants to happen?

9       A.   Yes.  In fact, it's stated it several times.

10      Q.   And there's many documents that establish that.  Is that  
11      fair to say?

12      A.   I think that's very fair to say.

13      Q.   Let me quickly go through one or two.

14                   Jamie, could I have tab 8?  JD 40931.

15                   Tell the court what this document is.

16      A.   This is the FTC's letter to Senator Magnuson back in 1966 at  
17      the time period that they were initiating holding hearings to  
18      set up its testing procedures and the associated regulations  
19      with them.

20      Q.   And we see here that the FTC is explaining to the Senate  
21      here basically this issue about the commission's announcement of  
22      March 25, 1966, regarding -- this was the one where they were  
23      making disclosure of tar and nicotine voluntary, they lifted the  
24      ban; is that correct?

25      A.   That is exactly correct.

1 Q. It was in 1970 that they made it mandatory?

2 A. Yes.

3 Q. Advertised tar and nicotine levels; is that correct?

4 A. 1971, yes.

5 Q. So at the time they lifted the ban, if -- I don't want to go  
6 through this document to any great extent -- but if you go -- if  
7 I could go to page 7, please, of this document.

8 In this document the FTC explains to the Congress, to  
9 the Senate, the background of what led them to lift the tar and  
10 nicotine advertising ban; is that correct?

11 A. That is correct.

12 Q. And they go through here in some detail explaining that the  
13 public health community wanted the ban lifted; is that correct?

14 A. Yes. That would be correct.

15 Q. And I'm not going to read all of this. But you see you've  
16 got the National Interagency Council on Smoking and Health  
17 making that recommendation, is that correct, to the FTC?

18 A. Yes.

19 Q. Could I go to the next page?

20 You've got the American Cancer Society making a strong  
21 recommendation to the FTC that they lift the ban and allow  
22 tobacco companies to advertise tar and nicotine levels; is that  
23 correct?

24 A. That is correct.

25 Q. Could I go to the next page, Jamie?

1           And then this goes on to describe what the national --  
2     the American Cancer Society is stating.

3           Next page.

4           There, we get into -- this is from the Director of  
5     Roswell Park Memorial Institute. What is that, Doctor?

6     A. It's a research and treatment institute, and basically they  
7     are one of the leading researchers in cancer and cancer-causing  
8     drugs during that period of time; the origins of cancer  
9     basically.

10    Q. And they recommend to the FTC lift that ban, put the tar and  
11    nicotine numbers in advertising; is that correct?

12    A. Yes.

13    Q. Go to the next page, page 11.

14           Roswell Park says, Whatever means, legislative or  
15    otherwise, are employed to promote a reduction in tar levels,  
16    the process will necessarily be a rather gradual evolutionary  
17    one.

18           "To drive such a process, two things are necessary.  
19    The manufacturers need a strong incentive to produce cigarettes  
20    with low levels of tar and nicotine.

21           "Second, the public needs to be informed concerning tar  
22    and nicotine levels and encouraged to use products with reduced  
23    levels."

24           And as a result of that the ban was lifted; is that  
25    correct?

1 A. That is correct.

2 Q. And let's go to tab 14, Jamie. JD 43418.

3 This is the 1968 FTC report to Congress; is that  
4 correct?

5 A. Yes.

6 Q. And I'm going to direct your attention to page 17. I'm just  
7 going to read off. Actually, the last paragraph there.

8 "Based upon" -- this is the FTC stating -- "Based upon  
9 the proposition that lower-yield cigarettes present a lessened  
10 hazard to the American public, the commission has acted within  
11 the past year to, one, augment information available to the  
12 public on the tar and nicotine content of cigarettes and, two,  
13 prompt cigarette manufacturers to develop less hazardous  
14 cigarettes."

15 So, when you -- as an expert, when you went through the  
16 FTC's record on this, is there any doubt the FTC wanted and  
17 intended consumers to rely upon tar and nicotine levels and  
18 descriptor information so that they could make a choice about a  
19 less hazardous cigarette?

20 MR. GOLDFARB: Objection, leading.

21 THE COURT: The objection is overruled. The Doctor may  
22 answer.

23 THE WITNESS: Thank you.

24 A. There's really no doubt about that. The FTC had a policy.

25 It was criticized by the public health groups. It responded to

1       them. And it basically stated in a variety of ways this is what  
2       we want to encourage and the way we are going to allow is tar  
3       and nicotine ratings allowed by the FTC method to be put in ads.

4       Q. And if consumers today, and consumer testing, believed that  
5       they are receiving health information when they see those type  
6       of ads, as of today as far as you know is that what the FTC  
7       wants them to believe?

8       A. Well, they haven't -- well, in effect, yes. I mean, what  
9       the testimony of Mr. Peeler was that they believed compensation  
10      was not complete and that this was -- this was a health issue,  
11      an implied health claim as far as the FTC was concerned, and  
12      that they wanted to continue to provide this information to  
13      consumers for health reasons as well as others.

14     Q. And the tobacco companies continued to provide the  
15     information pursuant to these FTC requirements; is that correct?

16     A. Yes, that's true, in ads.

17     Q. Now, let me go to a little different issue.

18               Do you recall cross-examination last Thursday? You  
19     were asked a series of questions about whether you investigated  
20     if the tobacco companies did their own rigorous research to  
21     determine whether low-delivery cigarettes were less harmful  
22     before they advertised such cigarettes to consumers.

23               Do you recall being asked those questions?

24     A. Generally, yes.

25     Q. Now, Doctor, based on the work you've done as an expert



1 witness, are you generally aware that throughout the '50s, '60s,  
2 '70s, and '80s that the public health community did its own  
3 investigation of these cigarette products, low delivery  
4 products?

5 A. Absolutely. The FTC reflects them in a number of its  
6 actions, but it's just a general matter. I'm aware of that,  
7 too.

8 Q. I don't intend to get into a lot of detail. But you know  
9 that these are referred to as epidemiology studies; is that  
10 correct?

11 A. There are a variety of studies. Epidemiology is one of  
12 them?

13 Q. And I'm going to show you -- could I have -- Jamie, it's tab  
14 34. JE 045979, which is Dr. Samet's chapter in Monograph 7.

15 And have you seen this document before?

16 A. Yes, I certainly have.

17 Q. And I'm going to go to -- Jamie, could I go to page 77?

18 Doctor, I've culled out on the screen what I want to  
19 just call to your attention where -- strike the question.

20 Are you generally aware that Dr. Samet has also  
21 testified in this proceeding?

22 A. I'm aware of that.

23 Q. Dr. Samet states in Monograph 7 that only epidemiologic  
24 studies can provide information on modification of the risk of  
25 smoking as the cigarette has evolved and only epidemiologic data

1       can measure the risks of cigarettes under the natural  
2       circumstances of use.

3               Now, if I could then also go over to page 79, Jamie,  
4       and page 80, where Dr. Samet continues with this same point,  
5       that epidemiologic research has had a central role in  
6       characterizing the consequences of the changing cigarette  
7       because it supplies direct information on the consequences of  
8       varying tar and nicotine yield products. Thus, the findings  
9       inherently consider compensatory changes in inhalation patterns  
10      or a number of cigarettes smoked and provide the evidence needed  
11      to answer the question of immediate public health relevance:  
12      whether the disease risk varies with cigarette tar and nicotine  
13      yield as determined by the FTC method.

14             Now, Doctor, based on the work that you've done as an  
15      expert witness in the case, who is it that carried out these  
16      epidemiology studies that Dr. Samet says is the only way to find  
17      out the truth?

18             MR. GOLDFARB: Objection, Your Honor. This is beyond  
19      the scope of what I asked him. It's beyond the scope of the  
20      witness's expertise.

21             MR. WEBB: Your Honor, he clearly opened --

22             THE COURT: First of all, the door was opened.

23             And second of all, based on the testimony presented,  
24      this information is clearly within his area of expertise. So he  
25      may answer the question.

1 BY MR. WEBB:

2 Q. My question, sir, is these studies that Dr. Samet say are  
3 the only kind of studies that can ultimately answer the question  
4 about whether low-delivery cigarettes in fact are less harmful,  
5 who is it that carried out these epidemiology studies?

6 A. Independent researchers. You know, the public health  
7 community, people like that. People -- yeah, I mean, Professor  
8 Hoffman, people like that.

9 Q. Are you generally aware that such studies were carried out  
10 throughout the '50s, '60s, '70s, '80s?

11 Have you seen evidence that there's as many as 40 of  
12 these epidemiology studies that show that lower-delivery  
13 cigarettes in fact are less harmful?

14 A. Yeah. There clearly are throughout this period of time  
15 based on my review.

16 Q. And in your review of the evidence, is there any reason, any  
17 fault on the tobacco companies' part in relying upon these  
18 studies?

19 A. Well, I mean it was the existing science --

20 THE COURT: Excuse me. I know the government isn't  
21 objecting probably based upon my last ruling.

22 This question is clearly way beyond the scope of his  
23 expertise.

24 MR. WEBB: I'll strike it. I'll move on.

25 BY MR. WEBB:

1 Q. Now, Doctor, you were asked some questions during  
2 cross-examination about a letter that was sent by Robert Meyner,  
3 the administrator of the Cigarette Advertising Code, a letter  
4 that he sent in April of 1966 to the chairman of the Federal  
5 Trade Commission.

6 Do you recall that Mr. Goldfarb asked you some  
7 questions about that letter?

8 A. I do recall that.

9 Q. I don't think he showed you the actual letter, so let me do  
10 that.

11 If I could have tab 13, which is JD 3681, and I'll hand  
12 a hard copy to you and call it up on the screen.

13 A. Thank you.

14 Q. I take it during the course of your work as an expert  
15 witness you have reviewed this letter. Is that fair to say?

16 A. Oh, yes, many times.

17 Q. Who is Robert Meyner?

18 A. He was the administrator of the Cigarette Advertising Code.

19 Q. Now, who had selected him to be the administrator of the  
20 Cigarette Advertising Code?

21 A. I believe the cigarette companies had done that, but I don't  
22 recall specifically.

23 Q. Now, if you go down to the bottom.

24 A. Actually, that may not be correct. I just don't remember  
25 the specifics.

1 Q. Fine. If you don't remember, then you just tell me you  
2 don't remember and I accept it and I'll move on.

3 A. Okay.

4 Q. Mr. Meyner, as the administrator of the Cigarette  
5 Advertising Code, says the following to the FTC at the time they  
6 are lifting the advertising ban on tar and nicotine levels.

7 "Accordingly, I fear that consumer confusion and a  
8 disservice to the public interest may result from the  
9 commission's announcement, because any reference in an  
10 advertisement or on a label to specific quantities of tar and  
11 nicotine as proposed in that announcement without any  
12 disclaimer, would be interpreted by the public as a claim  
13 concerning the health consequences of smoking that brand."

14 So, this is at least what Mr. Meyer. As the  
15 administrator of the Cigarette Advertising Code, told the FTC;  
16 is that correct.

17 A. That's certainly true.

18 Q. If we go to the next page of the letter.

19 And the conclusion re-emphasizes it where Mr. Meyner is  
20 the administrator tells the FTC, "As I suggested at the outset,  
21 in the absence of any adequate disclaimer as to the significance  
22 in terms of health of any statement of tar and nicotine content  
23 in milligrams, it would be difficult for most of the consuming  
24 public not to be misled by such statement, there being no  
25 adequate and valid scientific data as to the health relevance of

1 the quantity stated."

2 Now, after Mr. Meyner communicated his views to the  
3 FTC, did the FTC continue with allowing the advertising of tar  
4 and nicotine levels?

5 A. Oh, yes. Yes, they certainly did.

6 Q. In fact, made it mandatory in 1970?

7 A. That's correct.

8 Q. And did the FTC in any way implement or require the tobacco  
9 companies or tell them that a disclaimer should be used in  
10 connection with advertising tar and nicotine levels?

11 A. No, they did not.

12 Q. Now -- but stick on the subject matter of disclaimers, let's  
13 stick with that for a minute.

14 By the way, that's true as of today; is that correct?  
15 When someone picks up -- when someone picks up a magazine and  
16 sees a cigarette ad in that magazine and they see the tar and  
17 nicotine levels or they see the descriptors lights, is there any  
18 disclaimer in those ads?

19 A. Not in most ads.

20 Q. Well, let's talk about that. Let's talk about where things  
21 have been going in recent times. Okay?

22 A. Uh-huh.

23 Q. As far as this disclaimer issue is concerned, let me show  
24 you tab 35, which is JE 45823, which is a Philip Morris FTC  
25 petition filed by Philip Morris in September of '02 with the

1 Federal Trade Commission.

2 And have you reviewed this document as part of your  
3 expert work in this case?

4 A. I have reviewed the document.

5 Q. And this is a petition Philip Morris made to the FTC after  
6 Monograph 13 for rule making. Is that correct?

7 MR. GOLDFARB: Objection, Your Honor. This is all in  
8 the direct. There's nothing -- I didn't ask the witness any  
9 questions about this. This is all straight out of the witness's  
10 written direct examination.

11 MR. WEBB: Your Honor, I believe counsel went into this  
12 issue about disclaimer with Mr. Meyner as suggesting the tobacco  
13 companies have done something wrong because there's no  
14 disclaimer. And I want to bring out the reason there is no  
15 disclaimer is because the FTC doesn't want a disclaimer.

16 THE COURT: I don't think he covered that or certainly  
17 that wasn't the implication of the testimony.

18 There were questions asked about what Governor Meyner's  
19 position was to the FTC on behalf of the industry, and you've  
20 covered about that, but I'm going to sustain the objection.

21 MR. WEBB: I'll move on, Your Honor.

22 BY MR. WEBB:

23 Q. Doctor, let me show you a B&W document that was shown to you  
24 on cross-examination. It's tab 42 which is U.S. Exhibit 21042.

25 A. Thank you.

1 Q. And this is a document that Mr. Goldfarb showed you, dated  
2 June 9, 1982, authored by the B&W general counsel Ernest  
3 Pepples. Do you recall being shown this document?

4 A. I do recall seeing this document.

5 Q. And Mr. Goldfarb showed you certain portions. I want to  
6 show you a couple of portions that Mr. Goldfarb did not show you  
7 and to show the court what's going on in connection with this  
8 document.

9 As far as the introduction of the document that was  
10 authored by Mr. Pepples on or about June 9, 1982, he starts out  
11 his memo by talking about, he says "The inherent limitations of  
12 the FTC cigarette testing program, and borderline low tar  
13 advertising practices resulting from the way the test results  
14 are reported have contributed to substantial consumer confusion  
15 and misunderstanding. This situation threatens to erode public  
16 confidence in both the FTC's test reports and the industry's  
17 advertising claims. However, both the tests and the advertising  
18 disclosure of the test results are important elements of a  
19 program to encourage the development and promotion of lower-tar  
20 cigarettes. Therefore, steps ought to be taken now to make  
21 those changes in the way the testing and advertising program is  
22 carried out which will preserve its integrity and effectiveness  
23 and shore-up public confidence in it."

24 Now if we could then go, if I could, to page 5 of the  
25 document. Mr. Pepples goes on in this document to make a



1       proposal for change in the FTC test method; is that correct?

2       A.   That's correct.

3       Q.   And one of the things he says, "A simple common sense change  
4       in the way FTC's testing and reporting is done will preserve its  
5       integrity and effectiveness and shore-up public confidence in  
6       the program. The present standardized test procedure, which  
7       treats all cigarettes the same, is not in need of change. No  
8       machine testing program can duplicate all the varied smoking  
9       habits of the entire smoking population. The sensible step to  
10      take is to continue the present test methodology, but change the  
11      reporting format."

12                 And he goes on to say, "This might be done by reporting  
13      all cigarette yields in one of four categories," and he sets  
14      forth those categories. Do you see that?

15      A.   I do.

16      Q.   "In addition," he says, "an EPA type disclaimer might be  
17      adopted to warn that the FTC figures are standardized  
18      measurements derived by laboratory tests; any smoker may get  
19      more or less smoke depending on the way he or she smokes the  
20      brand in question."

21                 Now, this position by B&W as to what they about the  
22      test method and changes, did this information emerge during the  
23      course of the Barclay proceeding from B&W?

24      A.   Oh, yes.

25      Q.   B&W, this is not -- what Mr. Pepples is suggesting in this

1 memo about changes, at least B&W thinks should be implemented,  
2 become part of the Barclay proceeding. Is that fair to say?

3 A. I think that's accurate, yes.

4 Q. But that idea of a disclaimer, at least as of today, has  
5 still not been adopted by the FTC?

6 A. Has still not been required, that's correct.

7 Q. By the way, Doctor, what I might call a miscellaneous point.

8 The government brought out -- I think you said you've  
9 earned approximately \$825,000 over the past 5 years in working  
10 on tobacco-related matters as an economist. Is that correct?

11 A. That is correct.

12 Q. So that's by my -- I'll do my math, and that's about  
13 \$165,000 per year on average?

14 A. I'll take your representation on that.

15 Q. I want you to tell the court. On an annual basis what  
16 percentage of your total annual compensation has been by and  
17 large represented by income that you have earned in connection  
18 with tobacco-related work?

19 A. It's between 10 and 15 percent.

20 Q. Now, let me go to the next point.

21 Do you recall a lot of questioning during the  
22 government's cross-examination suggesting that the FTC has not  
23 done a very good job in policing health claims in cigarette  
24 advertising, and the government asked you some specific  
25 questions as to whether the FTC engages in preclearance of

1 cigarette ads before they are actually aired or published.

2 Do you recall those questions?

3 A. Yes, in general I do.

4 Q. And I believe you recall that you told Mr. Goldfarb during  
5 that questioning that it was your belief that the FTC was  
6 heavily involved in preclearing ads back in the 1950s when  
7 health claims were common, but at some point the problem came  
8 under control and that the FTC had not engaged in that practice  
9 on a regular basis over the years.

10 Did I summarize your testimony correctly?

11 A. I think that's accurate, yes.

12 Q. And let me just show you. Let's go back, so we can put  
13 things in proper perspective as far as what the FTC was actually  
14 doing, whether they were doing their job correctly.

15 Could I have, Jamie, tab 43? JD 000332. And this is  
16 testimony provided to Congress.

17 And, Doctor, I'm going to focus on testimony given in  
18 July of 1957 by the -- by Mr. Robert Secrest of the Federal  
19 Trade Commission.

20 Jamie, could I have page 273 called up on the screen?

21 Have you seen this document before.

22 A. Yes, I believe I referenced it in my direct testimony if my  
23 memory is correct.

24 Q. This is Mr. Secrest, Acting Chairman of the Federal Trade  
25 Commission, testifying in front of Congress in July of 1957; is

1       that correct?

2       A.   That is correct.

3       Q.   As far as this issue about preclearance of ads -- can we go  
4       to page 278, Jamie?

5               This is what Mr. Secrest told Congress back in those  
6       years, back in 1957, what the commission had been doing on this  
7       topic.

8               "The commission's staff has reviewed cigarette  
9       advertising continuously during and since the adoption of the  
10      guides." Now, is that referring to the 1955 guides?

11      A.   Yes, that is.

12      Q.   "The act," the commissioner says, "when claims considered  
13      questionable have been detected, they have been considered by  
14      representatives of the Bureau of Consultation and by both legal  
15      and scientific representatives of the Bureau of Investigation.  
16      The Bureau of Consultation has brought all such claims deemed  
17      violative of the guides to the attention of the company  
18      involved, and their discontinuance has been obtained as soon as  
19      possible, excepting, of course, for those matters currently  
20      receiving staff attention. And every day they are examining  
21      cigarette advertising."

22              He goes on to state where I've highlighted, "Prior to  
23      and after the guides were adopted, the Bureau of Consultation  
24      obtained the voluntary discontinuance of over 75 objectionable  
25      claims for industry products. In the majority of those

1 instances, the claims were discontinued within a brief time  
2 after their first appearance."

3 Now, as far as what Commissioner Secrest told Congress  
4 on this date in July of 1957, have you seen anything to  
5 contradict his testimony that the FTC was doing its job?

6 A. No. I mean, through this period they were clearly extremely  
7 active and, in my opinion, continued to be active afterward.

8 Q. And let's bring it up more currently.

9 Do you remember, for example, counsel asked you some  
10 questions about advertising in later years by True and Vantage  
11 cigarettes and whether the FTC had taken any action. Do you  
12 recall those questions?

13 A. I do.

14 Q. Let me focus on recent years as far as completing the  
15 picture on whether the FTC has been doing its job.

16 Let's just take the last 15 years or so. Has the FTC  
17 frequently investigated cigarette advertising that the FTC  
18 thought might contain an implied or expressed health claim?

19 A. Yes, clearly.

20 Q. And I don't want to spend a lot of time on this, but, for  
21 example, is one of the products that they investigated was one  
22 produced, manufactured by my client, called Next?

23 A. Yes. They opened up an investigation and looked into that  
24 for sure.

25 Q. What was my client saying about the Next product?

1           MR. GOLDFARB:  Objection, Your Honor.  This is beyond  
2     the scope of the cross-examination, and it's again in the direct  
3     examination of this witness.

4           MR. WEBB:  Your Honor, I intend to go through this  
5     quickly, but they clearly crossed him to try to show that the  
6     FTC is not doing its job.

7           This was the argument they made during Dr. Harris's  
8     testimony, that the FTC is a toothless tiger.  And I think I  
9     have a right to quickly through my expert show Your Honor that  
10    at least I believe what the evidence shows where the FTC is  
11    doing its job.

12          THE COURT:  I'll allow the questioning.  Even though I  
13    recognize that the government didn't go into the specifics of  
14    this example during its cross, there's no question that during  
15    the cross the government was trying to elicit testimony to show  
16    that the government -- that the FTC was not doing its job in  
17    this area.

18   BY MR. WEBB:

19   Q.  In fact, let me tell you.  I don't want to spend a lot of  
20   time on this.  Why don't you quickly summarize for the court  
21   what was Philip Morris doing with its ads and what did the FTC  
22   do?

23   A.  It was advertising the Next cigarettes as being an extremely  
24   low nicotine product.  And the FTC looked into those claims.

25          There were some complaints, I believe -- there were

1     some complaints by the public health community, and the FTC  
2     looked into those. The product turned out not to be much of a  
3     success, and being investigated by the FTC and not getting good  
4     public health community press, the cigarette eventually went  
5     away and the FTC eventually closed its investigation.

6     Q. And did Philip Morris go to the FTC when they started their  
7     investigation and provide them with all data they had to  
8     substantiate that the claims were accurate regarding the lower  
9     levels of nicotine?

10    A. Yeah. Absolutely. I mean, that's true for virtually all of  
11    the products that are sort of the, not just pure low tar and  
12    nicotine products. Yes, they certainly did.

13    Q. In the mid-1990s did the FTC investigate alleged health  
14    claims in connection with the Carlton brand of cigarettes? I  
15    think manufactured by the American Tobacco Company.

16    A. Yes. It certainly did.

17    Q. Just quickly summarize. What was Carlton doing and what did  
18    FTC do?

19    A. What Carlton was doing was advertising that if you -- sort  
20    of visually -- if you had 10 packets of Carlton, they would  
21    equal one pack of a full-flavored cigarette. The FTC was  
22    concerned that this implied one for one -- one for one tradeoff,  
23    that you would only get tar and nicotine. You would get an  
24    equivalent amount. That wasn't what the FTC believed its  
25    testing system did because of compensation -- explicitly because

1 of compensation issues. And the FTC required, and Carlton  
2 agreed to, not make those -- make those type of representations  
3 or any numeric ratio representation. Although the FTC still  
4 found that they were low tar products and so they could still  
5 advertise them as low tar products.

6 Q. Was a consent decree reached between the company and the FTC  
7 on this issue?

8 A. Yes.

9 Q. As far as you could tell, was the FTC doing its job?

10 A. Well, it certainly was enforcing it then.

11 Q. What about later in the 1970s when cigarette companies  
12 started advertising that their products had no additives or that  
13 they were all natural?

14 A. I believe in the 1990s and early 2000.

15 Q. Did I say the 1970s?

16 A. I thought you said the 1970s.

17 Q. I did. In the later 1990s, did some cigarette companies  
18 start advertising cigarette products as being all natural or  
19 having no additives?

20 A. Yes.

21 MR. GOLDFARB: Again, Your Honor, this is all out of  
22 the direct. I didn't ask any questions about any of these  
23 campaigns --

24 THE COURT: I would sustain it.

25 MR. GOLDFARB: -- and I would have questions about them



1 if counsel is going to explore them.

2 THE COURT: I'm going to sustain it. This is certainly  
3 adequately discussed in the direct.

4 MR. WEBB: Okay. I'll accept that ruling. I'll move  
5 on.

6 Your Honor, let me make a quick offer of proof. I  
7 would like to cover now what R.J. Reynolds Premier and Eclipse  
8 products and how they were investigated.

9 You ruled earlier that they were not properly disclosed  
10 and you said he could not go into that, so I did not go into it  
11 on direct examination at all.

12 However, I believe the government has opened the door  
13 to those FTC investigations. I don't intend to spend hardly any  
14 time on it, but I want again in the category of showing that the  
15 FTC was doing its job -- what opened the door here is that the  
16 government, to my surprise, showed this witness on direct  
17 examination U.S. Exhibit 85828, which is basically the document.  
18 Your Honor, I could put it on the screen.

19 Jamie, could you call up tab 44?

20 It was authored by an attorney by the name of Peter  
21 Hutt. H-u-t-t. Your Honor has seen that document before.

22 This document, Your Honor, was shown during the  
23 cross-examination by Mr. Goldfarb. This is the beginning of the  
24 government's investigation of the Premier product.

25 MR. GOLDFARB: Can I stop? If we're going to argue

1       about this, should the witness be excused?

2               MR. WEBB: Your Honor, I'm not going to argue anything  
3       that he didn't just sit through.

4               THE COURT: I don't think the argument is going to  
5       affect the substance of his testimony.

6               MR. WEBB: Not at all.

7               THE COURT: It's going to affect whether he  
8       testifies --

9               MR. WEBB: Let me be brief.

10              This document is the beginning of what in effect was  
11       the government's -- it was the FDA and the FTC's investigation  
12       of Premier.

13              And clearly they went into this document and what  
14       Mr. Hutt said in this first meeting with the government about  
15       Premier.

16              I have a right to at least briefly explain that the FTC  
17       did its job regarding Premier and Eclipse, and I'm not going to  
18       make an offer of proof, it's in the written direct. But I  
19       believe the door has been opened.

20              In addition to that, they asked him questions about  
21       this preclearance of ads by the FTC, and Mr. Goldfarb suggested  
22       that there had been no preclearance of ads since sometime in the  
23       1950s.

24              Dr. Langenfeld said no, that's not correct. I believe  
25       that in connection with the FTC's inquiry regarding Premier and

1 Eclipse, that some ad copy was submitted to the FTC before  
2 Reynolds started running ads.

3 So between -- combined with the fact that they've  
4 suggested the FTC is not doing its job, I believe I have a right  
5 to briefly put in the record -- probably take three minutes or  
6 less -- essentially what the FTC did with Premier and Eclipse  
7 because it does show, I respectfully suggest, a government  
8 agency doing its job.

9 THE COURT: Mr. Goldfarb.

10 MR. GOLDFARB: Your Honor, with respect to the 85828,  
11 the questions were limited to the specific position of -- to  
12 elucidate the specific position of Reynolds in 1987 as to  
13 conventional cigarettes; that it was Reynolds' position that  
14 they were not unsafe.

15 As far as the offer of proof goes, Your Honor. Order  
16 470 contains a mechanism for providing offer of proof. During  
17 the examination of Dr. Henningfield the court similarly  
18 sustained a portion of the examination that the government  
19 wanted to explore with Dr. Henningfield, and at the close of the  
20 examination, according to the court's orders, we submitted an  
21 offer of proof as to what we believed this witness would testify  
22 about. And further of course, Your Honor, at the outset of his  
23 testimony, Your Honor sustained the government's objections with  
24 respect to this witness's discussions of Premier and Eclipse.

25 And so, for those reasons, if defendants want to submit

1     an offer of proof pursuant to Order 470, they can do that after  
2     this witness has left the stand, as we have done previously with  
3     our witnesses.

4             MR. WEBB: Your Honor, the offer of proof -- the  
5     written direct is on file with, Your Honor. What I'm trying to  
6     just quickly bring out is that -- they have no right to go ahead  
7     and start this story and what Peter Hutt did... this whole  
8     meeting is about R.J. Reynolds Premier's smokeless cigarette  
9     product. The fact that they chose to use this, that was their  
10    choice.

11            THE COURT: Didn't you open the door, Mr. Goldfarb?

12            MR. GOLDFARB: I don't think so, Your Honor, because we  
13    used this -- we used this to indicate that in the late 80s it  
14    had nothing to do with, first of all, whether or not as to  
15    another point -- whether or not the Premier and Eclipse ads may  
16    have been submitted to the FTC does not answer the question as  
17    to whether there was any preclearance. So that's simply another  
18    question.

19            But simply using the document to elucidate Reynolds'  
20    position as to the -- as to whether any cigarettes in 1987 had  
21    been proven to be harmful is the sole purpose for which that  
22    document was used, and that doesn't open any door to testimony  
23    or to questioning of this witness about the FTC's addressing  
24    Premier.

25            THE COURT: The objection is overruled. I'll allow it

1 in.

2 Let's proceed.

3 BY MR. WEBB:

4 Q. I want to do this very quickly, Doctor. I want to take the  
5 Premier product first. I want you to just -- would you just  
6 tell the court, what is it that Reynolds did with the Premier  
7 product, and what investigation did the FTC start and what  
8 happened to the investigation?

9 A. Before Reynolds started -- Reynolds test marketed these  
10 cigarettes in a variety of cities. It had done a great deal of  
11 research trying to substantiate certain reductions in certain  
12 carcinogenic compounds.

13 And what it did was it submitted that substantiation  
14 per the FTC's substantiation policy, submitted that to the FTC  
15 prior to its going out and seriously marketing the product.

16 Q. And what happened?

17 A. The FTC looked at it. They opened up an investigation.  
18 They looked at the ads. They continued the investigation until  
19 after the product was eventually removed from the market.

20 Q. When Premier gets removed from the market the FTC still has  
21 an open investigation; is that correct?

22 A. That is correct.

23 Q. Now, in connection with the Premier investigation as far as  
24 you could tell, did the FTC appear to be doing -- excuse me --  
25 appear to be doing its job in that it was looking at health

1       claims or potential health claims and trying to determine if  
2       there was substantiation to support it?

3               THE COURT:  What's the objection?

4               MR. GOLDFARB:  Objection.  Again, Your Honor if counsel  
5       is going to continue to explore this area, I have questions to  
6       ask this witness and I would request recross on this limited  
7       area if counsel is going to explore the FTC.

8               This is all out of this witness's written direct.  I  
9       didn't explore it.  And based on Your Honor's rulings at the  
10      outset of examination, we feel questioning on this is improper,  
11      and I do have some recross on it if the substantive area of the  
12      FTC's actions with respect to Premier are gone into.

13              THE COURT:  No.  The issue was certainly opened by the  
14      government.  Obviously, cross is then appropriate, and that  
15      doesn't necessarily -- it certainly doesn't entitle the  
16      government to additional questioning.

17              So let's proceed and get this 3-minute piece over with.

18              MR. WEBB:  I'm going to try to live within that.

19      BY MR. WEBB:

20      Q.  After Premier got withdrawn from the market, did Reynolds  
21      introduce a companion product called Eclipse product into the  
22      market?

23      A.  It did later yes.

24      Q.  And I want to go up to the year 2000.

25              In the year 2000, did Reynolds begin advertising the

1 Eclipse brand of cigarettes as potentially less hazardous?

2 A. It did.

3 Q. What was Reynolds saying in its advertisements about  
4 Eclipse?

5 A. It said specifically that there were reduced carcinogenic  
6 compounds in their cigarettes that had been -- and that the  
7 general claim was that with regard -- that cigarettes may result  
8 in less lung cancer and bronchial inflammation and also could be  
9 related to reductions in emphysema.

10 Q. And in 2000, in that year when those ads appeared, did the  
11 FTC open an investigation of Eclipse?

12 A. Oh, right away, yes.

13 Q. Did Reynolds provide a large volume of scientific  
14 substantiation to the FTC to support the claims it was making?

15 A. Yes, to the FTC, and they also frankly made it public to  
16 everyone.

17 Q. Now, tell the court, under FTC's normal procedures if the  
18 FTC agreed with R.J. Reynolds that there was adequate  
19 substantiation for the advertising, how would that get  
20 communicated to Reynolds?

21 A. Well, the FTC never finally approves anything. But what  
22 typically will happen -- and as happened in a number of these  
23 products -- is after the FTC investigate things -- it doesn't  
24 always happen, but most of the time it will send out a closing  
25 notice, which says We've already put you on notice. We have

1       gotten all this information from you. We are closing the  
2       investigation, although -- and they always say we are going to  
3       continue to watch you. That's an economist's version of what's  
4       in those notices.

5       Q. Today, in the year 2005, is that FTC Eclipse investigation  
6       still open based on what you've seen in the record?

7               MR. GOLDFARB: Objection again, Your Honor. This is  
8       way beyond the scope of direct.

9               THE COURT: The objection is overruled.

10              Go ahead.

11       A. I see nothing to indicate that the investigation is closed.  
12       I think there's actually some testimony that it continues to be  
13       open in this case.

14       Q. Now, just another couple of topics, Doctor.

15              During my direct examination you explained in some  
16       detail your view as an expert as to why the tobacco companies  
17       have generally avoided making health claims in cigarette  
18       advertising in which you attributed in your opinion to the  
19       presence of this history of FTC activity.

20              Is that fair to say?

21       A. Yes. Certainly, yes, that would be true.

22       Q. But do you recall during the course of the government's  
23       cross-examination the government spent some time asking you  
24       questions suggesting that, in fact, there was a different reason  
25       why the tobacco companies did not advertise health claims



1       because of statements in certain documents that in the early  
2       1950s the tobacco companies entered into an agreement to not  
3       advertise or compete on the basis of health.

4               Do you recall Mr. Goldfarb asking you questions and  
5       showing you documents on that point?

6       A.   Absolutely.  Yes, I do recall that.

7       Q.   Now, on this issue about whether there was an agreement  
8       between the tobacco companies not to compete and market  
9       cigarettes on the basis of health; as an economist have you  
10      reviewed the relevant evidence in order to determine if in your  
11      opinion the evidence is consistent or inconsistent with such a  
12      conspiratorial agreement?

13             MR. GOLDFARB:  Objection, Your Honor.  This is well  
14      beyond the scope.

15             The witness has explicitly said he made no disclosure,  
16      no opinions, and provided no documents as to whether or not in  
17      order to provide an opinion on this question in this case.  So  
18      it's beyond the scope of the witness's disclosure and his  
19      opinions in this case.

20             THE COURT:  It's more.  It goes to the ultimate issue  
21      in this case, and he can't testify as to the ultimate legal  
22      issues to be decided in this case.

23             MR. WEBB:  Your Honor, I mean, respectfully -- and I'll  
24      follow your dictates or your ruling, but let me just very  
25      quickly.

1           The government -- I did not introduce this in my  
2     written direct. They brought out on his cross-examination that  
3     in other cases he's looked at this issue. Because as a  
4     economist, he's allowed to testify, not only the ultimate issue  
5     of whether there's a conspiracy, all he can do is talk about the  
6     economics as an economist -- whether he sees as an economist  
7     from the evidence he sees whether or not it's consistent or  
8     inconsistent from an economic standpoint based on what happened  
9     in market share, et cetera.

10           He can't give an ultimate opinion, but he can give that  
11     opinion as an economist on whether evidence is consistent or  
12     inconsistent from an economic standpoint as to whether such  
13     agreement existed, but he wasn't going to give that opinion at  
14     all, and I was surprised when the government went barreling  
15     forward during their cross-examination and they went right to  
16     it. They went right to this so-called agreement that took place  
17     in the early 1950s in order to -- in order to try to take away  
18     his testimony as to what the reason was as to why health claims  
19     were not generally advertised.

20           And so certainly -- but they brought out themselves on  
21     his cross. He's done the work. He's done the analysis in other  
22     cases. And so I clearly -- if the government had not opened the  
23     door, I would not be standing here doing this. It's a pretty  
24     big issue.

25           When the government is trying to suggest that he's

1       wrong in his entire expert opinion testimony on why they didn't  
2       advertise health claims, I have a right, as an economist, to  
3       have him briefly explain that he -- at least he believes the  
4       economic reasons when he sees in the record that's not  
5       consistent with a conspiracy. And he can give that opinion,  
6       it's not the ultimate issue. And they opened the door to it. I  
7       didn't.

8               THE COURT: Mr. Goldfarb.

9               MR. GOLDFARB: Your Honor, again, it's with respect to  
10       disclosure. I haven't had a chance to -- as an economist, he's  
11       provided us with his opinions and the matters that he relied  
12       on -- relied upon to give his opinions in this case.

13               Now, I presented a few documents and talked about  
14       issues that he is now opining in on in this case to present the  
15       court with a different issue. But in terms of, if he's going to  
16       start as an economist, as an expert in this case, opining on  
17       defendants' documents which he said for this case he did not  
18       review and he has not disclosed, it's prejudicial to the  
19       government and he shouldn't be allowed to provide opinions. If  
20       he's done it in other cases, that's irrelevant to the opinions  
21       he's offered in this case.

22               And as an economist, if he's giving opinions, he should  
23       be limited to the materials that he considered for purposes of  
24       his opinions in this case.

25               MR. WEBB: Your Honor, when the government -- when they

1       -- they made the decision to open this up. Okay? They  
2       absolutely made that decision to do so.

3               And under the rules of examination, when they --  
4       there's no rule that says, well, the witness, once he gets  
5       cross-examined on it, he can't give his opinion on what he's  
6       cross-examined on. That's a silly argument.

7               THE COURT: The objection is overruled.

8               Let me make it clear. Obviously, as to his direct  
9       examination, the government has to be fully informed about his  
10      opinions and his reliance materials. The government then goes  
11      forward with its cross.

12              When the government, through its cross, tries to  
13      invalidate one of the basic components of his direct testimony,  
14      then certainly on redirect he can, in essence, defend his  
15      position and defend his testimony and explain it further. So  
16      the objection is overruled.

17              Let's proceed.

18      BY MR. WEBB:

19      Q. Doctor, as an industrial organization economist, do you have  
20      an opinion as to whether the evidence is consistent or  
21      inconsistent from an economic standpoint with the government's  
22      contention that a conspiracy existed beginning in the early  
23      1950s to not develop or market any cigarette brand based on  
24      health?

25              MR. GOLDFARB: Objection. I just want -- the question

1       was vague. I just want to know what evidence he's relying on in  
2       asking the question.

3               THE COURT: Go ahead.

4               MR. WEBB: I'm going to elicit the opinion and then I'm  
5       going to bring out the basis for the opinion.

6               THE COURT: Correct. And the objection is overruled  
7       because the witness, after giving his opinion, is to give the  
8       basis for it.

9       BY MR. WEBB:

10      Q. Please state your opinion.

11      A. I'm sorry. Could I have the question again?

12      Q. I will. My question, sir, is have you formed -- do you have  
13      an opinion as to whether the evidence is consistent or  
14      inconsistent with the government's contention that a conspiracy  
15      existed beginning in the early 1950s where the tobacco companies  
16      agreed to not develop or market any cigarette brand with health  
17      claims?

18      A. Well, in -- the economic evidence is inconsistent with the  
19      government's claim.

20      Q. And all I want you to do is just explain to the court the  
21      basis for that opinion.

22      A. Okay. Well, I'll try to do this briefly.

23               For example, if we look back in the 1950s the FTC had  
24      gone through and won the cases. The FTC inspired, literally  
25      inspired, Better Business Bureau statements as to what should be

1     done and shouldn't be done in advertising; came out at the same  
2     time that the meeting that I saw documents on took place. And  
3     the FTC immediately went out and started enforcing the guides as  
4     they came out, even before they came out; in fact, as pointed  
5     out in the testimony.

6             The only area that the FTC allowed was tar and nicotine  
7     advertisements. Those advertisements continued to go forward  
8     because the FTC allowed them.

9             If there had been -- this is the economics -- if there  
10    had been an agreement at that point in time to eliminate all  
11    things related to health, you would have expected not to see  
12    even those tar and nicotine ads, which was the loophole in the  
13    FTC, if they had all agreed not to compete on health issues, but  
14    that's not what you see. That economic evidence is inconsistent  
15    with the conspiracy revolving around the meetings 1953.

16    Q. Let me ask you about that quickly.

17             What you're talking about is once the ban was lifted,  
18    and before it was made mandatory, did some cigarette companies  
19    advertise tar and nicotine levels and others did not? Is that  
20    what happened?

21    A. That's what happened, but a number of them did.

22    Q. So go on with your basis of your opinion.

23             MR. GOLDFARB: Objection again, Your Honor.

24             He's again talking about the content, the content of  
25    the internal documents which he didn't disclose.

1           Co-counsel has reminded me that during his initial  
2       cross, and again this is at the rough transcript, the witness  
3       expressly indicated that -- and he was going to quote, it was at  
4       page 70 of the rough on Thursday. Quote, I'm not offering an  
5       opinion on a full economic analysis of conspiracy allegations  
6       here.

7           MR. WEBB: That's my point. I'm sorry. I didn't mean  
8       to interrupt you.

9           MR. GOLDFARB: So we're going further and further down  
10      the road where he's offering conspiracy allegations about  
11      documents that -- a full range of documents that he hasn't  
12      disclosed. I'm not exactly sure what the documents are he's  
13      relying upon to render an economic opinion of conspiracy in this  
14      case.

15          THE COURT: At this point, certainly sufficient  
16      testimony has been offered on this issue. The objection is  
17      sustained at this point.

18      BY MR. WEBB:

19      Q. Let me try to wrap this up, then, on this issue.

20           Can I show the witness J-DEM 10076, which is tab 46?

21           Doctor, do you recognize what I've shown you as to  
22      basically be a chart showing the market share of the tobacco  
23      industry between 1950 and 2000?

24      A. I do.

25      Q. I want you to explain to the court. As an economist, if

1       there was actually an agreement between the parties back in the  
2       1950s not to market -- not to develop or market cigarettes based  
3       on health claims, would you see this type of market share  
4       shifting where one company, Philip Morris, takes market share  
5       away from other companies?

6               MR. GOLDFARB:  Objection, Your Honor.  It's the same  
7       issue that Your Honor --

8               THE COURT:  It's not the same objection.  This doesn't  
9       go to any prior studies or documents or reliance materials that  
10      he's used --

11              MR. GOLDFARB:  Again -- I'm sorry.

12              THE COURT:  Underlying -- I shouldn't say underlying.  
13      Your original objection was overruled.  Certain testimony was  
14      taken.  It was fairly brief and very narrowly tailored to the  
15      specific question.

16              Then you made an additional objection and I did sustain  
17      it because we were getting into detailed reliance materials or  
18      certainly detailed studies.

19              At this point the question is about a chart that's on  
20      the screen that does not, so far as I can tell, involve any  
21      prior analysis or examination, and for that reason the objection  
22      is overruled.

23      BY MR. WEBB:

24      Q.  Doctor, would you please explain to the court based on this  
25      chart whether this is what you would expect to have happened in



1 a shift in market share if these companies were in agreement not  
2 to market cigarettes based on health claims?

3 A. Well, the answer to that is clearly no.

4 Concerns about lighter cigarettes and health claims as  
5 measured by the FTC test method were obviously, as we've talked  
6 about, very important to consumers. That was a major element of  
7 competition to this period of time.

8 If everyone had an agreement to not market safer  
9 cigarettes or make health claims, what you would expect is the  
10 market shares to stay roughly in parallel. You wouldn't see big  
11 changes because you would want -- you would expect -- you  
12 wouldn't expect someone to continue to agree to that type of  
13 conspiracy if, in fact, they were losing market share hand over  
14 fist. There's no gain to them. They are better to try to find  
15 a way out.

16 And Philip Morris gaining share, but in particular  
17 American and Liggett losing share over this period of time, they  
18 would not have an economic incentive at least to try to maintain  
19 that type of alleged conspiracy.

20 MR. GOLDFARB: Objection. Your Honor, I move that the  
21 witness's last answer be stricken.

22 This is straight conspiracy economic opinions which are  
23 not contained anywhere in his direct examination. I certainly  
24 didn't ask about market share --

25 THE COURT: I've ruled on this issue already,

1 Mr. Goldfarb.

2 MR. WEBB: I have no more questions, Your Honor.

3 Oh, Your Honor, I do have one motion to make then. I  
4 cut back significantly, Your Honor, in telling the Premier and  
5 Eclipse story for time reasons, but in light of the court's  
6 ruling that the government had opened the door to Eclipse and  
7 Premier, I would simply like to offer -- just to complete the  
8 record -- to reoffer back into evidence the testimony in his  
9 written direct, which is in more detail about Premier and  
10 Eclipse, on the grounds that, as Your Honor ruled -- that's my  
11 motion. I saw you shake your head.

12 THE COURT: The motion is denied. You got in all  
13 you're going to get in, and you only got it in because the  
14 government opened the door. That doesn't mean that the direct,  
15 which was precluded for other reasons, suddenly comes in.

16 Doctor, you may step down.

17 THE WITNESS: Thank you very much Your Honor.

18 THE COURT: We're a little bit early, and I gather --  
19 you may step down. You're excused. Thank you.

20 Wait a minute. Why is everybody moving their boxes?

21 MR. BRODY: Your Honor, I wasn't moving boxes. I was  
22 going to suggest that perhaps it would make sense to address a  
23 couple of the objections related to Dr. Bradley's testimony  
24 before the lunch break and presumably we could have those  
25 resolved and be ready to start with whatever testimony he will

1 be allowed to proceed with after the lunch break.

2 THE COURT: Well, we could do that, or what I was going  
3 to do was allow a discussion that I gather Mr. Bernick was  
4 concerned about, government's witness list.

5 Is that correct, Mr. Bernick?

6 We may still have time to get to Dr. Bradley's  
7 objections.

8 MR. BERNICK: I actually had two concerns.

9 One, not a concern, but to simply report to the court  
10 that, as we had promised last week, we have in fact filed a  
11 first amended list of the anticipated order of witnesses during  
12 our case.

13 THE COURT: I don't think I've seen that yet, but it  
14 may not have come through ECF yet.

15 MR. BERNICK: I'm happy incidentally -- I don't know if  
16 the government has had a chance to look at it. Maybe we just  
17 ought to defer so that they can --

18 MR. BRODY: I don't think that's been filed.

19 MR. BERNICK: It will be filed later today. I  
20 apologize for the statement, but we are going to file that.

21 The real concern that I had, thought, related to  
22 something that had been filed, which is the list of remedies  
23 witnesses.

24 Your Honor may recall that in the Order that spelled  
25 out the procedures that are to be followed in connection with

1 the remedies case, the very first step was that the government  
2 was to give us a list, or a set of detailed written statements  
3 as to what these witnesses were going to say.

4 We've now received that statement. It was submitted  
5 last Friday, the 11th. And frankly -- and I'm happy to go  
6 through this in as much detail as Your Honor wishes -- there are  
7 whole areas. I mean, basically the document looked something  
8 like this. So that what comprises --

9 MS. EUBANKS: Your Honor, I'm sorry to interrupt. But  
10 if this is the matter on which Mr. Frederick sent an e-mail at  
11 7:00 o'clock last night, it requested a meet and confer to  
12 discuss a motion about the witness list that we had submitted.

13 MR. BERNICK: No.

14 MS. EUBANKS: And we received another e-mail while  
15 sitting here in court saying that we would talk at the lunch  
16 break about a motion regarding our witness list that  
17 Mr. Frederick wished to discuss.

18 I mean, if Mr. Bernick is about to go into the subject  
19 of what is an intended motion, then I would object to that until  
20 we have an opportunity to discuss this with counsel and perhaps  
21 save the court some time.

22 THE COURT: What's really determinative is I haven't  
23 seen the United States' list of remedies witnesses. I'm going  
24 to put that issue aside, and maybe we will get back to it later  
25 today and maybe we won't.

1           Let me turn now to the objections regarding  
2     Dr. Bradley's testimony. All right. Would both counsel  
3     identify themselves who are going to question Dr. Bradley?

4           MR. MINTON: Michael Minton for Lorillard, Your Honor.

5           MR. KLONTZ: Your Honor, David Klontz for the  
6     government. I will not be examining Dr. Bradley, but I will be  
7     arguing the objections.

8           THE COURT: All right. Who is going to be examining  
9     him?

10          MR. BRODY: I will, Your Honor.

11          MR. MINTON: Your Honor, if it would assist the process  
12     any, I've reviewed the government's objections to my  
13     demonstratives and, as you will see, my live direct examination  
14     of Dr. Bradley is going to be keyed to those demonstratives, and  
15     every demonstrative that I intend to use, save two, has not been  
16     objected to.

17                 And so for the purpose of today's exercise, it may be  
18     useful simply to consider the two demonstratives that I do  
19     intend to use that the government has, in fact, objected to, if  
20     that's how the court would like to proceed.

21                 That would certainly, I think, truncate today's  
22     proceeding in terms of what we need to do to get this witness on  
23     and off the stand.

24                 THE COURT: Well, I think I'm going to proceed  
25     differently; mostly because my general way of getting prepared

1 is to go through your legal issues, the party objecting, and  
2 certainly in this case one of them is areas of expertise, one is  
3 disclosure. I think it's more orderly to go about it this way,  
4 plus it's the order in which I've gone about it, so that's the  
5 way we're going to do it.

6 All right. The first legal issue raised by the  
7 government is new opinions given by Dr. Bradley, allegedly given  
8 by Dr. Bradley, regarding ETS and cancer epidemiology. And I  
9 have carefully looked over, naturally, positions of everybody  
10 and let me go through the subissues.

11 On the issue of Dr. Bradley's testimony on foreign  
12 epidemiological studies and public health authorities' positions  
13 on ETS causation, that objection is overruled.

14 On the second issue, which is Dr. Bradley's testimony  
15 about breast cancer, that objection is sustained. That is not  
16 simply a mere example, as defendants say, of his testimony; it  
17 is clearly a separate, significant piece of expert opinion  
18 testimony.

19 The third issue raised -- again, we are still on issue  
20 number 1, everybody, which is disclosure of expert opinions.

21 The third issue is whether Dr. Bradley was going to  
22 critique, if you will, opinions expressed by plaintiff's  
23 experts. That objection is overruled since he clearly indicated  
24 in his amended expert report that he would testify about  
25 opinions expressed by plaintiff's experts.

1           On legal issue number 2, which is area of expertise,  
2       does the government want to make any additional argument? I  
3       have to tell you that the defendants' response is very  
4       persuasive to me.

5           MR. KLONTZ: Your Honor, I have to confess. I thought  
6       that you had ruled on issue number 2 already, so I better make  
7       sure I understand which specific issue we're talking about now.

8           THE COURT: I'm on what is page 3 and 4 of your  
9       objections.

10          MR. KLONTZ: The opinions outside the areas of his  
11       expertise?

12          THE COURT: That's what I thought I said.

13          MR. KLONTZ: Our position there, Your Honor, is that  
14       Dr. Samet offered an opinion based upon his medical training and  
15       expertise, and that it is inappropriate for Dr. Bradley as a  
16       supposed statistician -- and we don't concede anything with  
17       respect to his qualifications in that area -- it is  
18       inappropriate for him to critique Dr. Samet's opinions that were  
19       based upon his areas of medical expertise.

20                If I could just give a brief example --

21          THE COURT: But Dr. Bradley was saying that as a  
22       biostatistician it is inappropriate under the protocols of his  
23       profession to consider biological plausibility. Isn't that the  
24       defendants' argument?

25          MR. KLONTZ: That is their argument.

1           MR. MINTON: It is, Your Honor, and Dr. Bradley  
2       conceded in his deposition. He's not a medical expert. He's  
3       not going to offer any opinions about biological plausibility.

4           THE COURT: I understand, Mr. Minton, and he didn't.  
5       He just said flat out that the issue of biological plausibility  
6       is not an appropriate criteria to be used.

7           MR. KLONTZ: He may have said that, Your Honor, but  
8       what he's trying to do is challenge Dr. Samet's medical opinions  
9       in this case. And I think this is a wolf in sheep's clothing if  
10      I can use a terrible analogy. But what they are trying to do is  
11      use his testimony to challenge Dr. Samet's medical testimony. I  
12      think that's inappropriate, no matter how they characterize it.

13          THE COURT: Certainly they are trying to challenge  
14      Dr. Samet's testimony, no question about that, but not in a  
15      manner that is outside Dr. Bradley's expertise.

16          He is saying that as a biostatistician, and a very  
17      experienced one in that field, it is inappropriate to take into  
18      account the question of biological plausibility.

19          He is certainly not offering any view whatsoever as to  
20      the substance of Dr. Samet's medical conclusions about how  
21      biological plausibility factors into Dr. Samet's decision.

22          So, I don't think the government is correct about that,  
23      and that objection will be overruled.

24          Now, I have not gone through all of the issues, the  
25      specific objections to exhibits. I didn't think that was



1 particularly useful at this point. We usually do it at the end  
2 after counsel have had a chance to determine whether they could  
3 come to agreements.

4 And again, Mr. Minton, as I understood it, there are  
5 two demonstrative exhibits that the government objects to. Is  
6 that right?

7 MR. MINTON: That's correct, Your Honor.

8 THE COURT: Let me focus on those. Where are they,  
9 everybody?

10 Let's start with the government's objections. They  
11 begin on page 5, the specific objections.

12 MR. KLONTZ: Your Honor, just to be clear, I think it  
13 begins on page 7, actually, the objections to the exhibits.

14 Mr. Minton has stated that there are only two  
15 demonstrative exhibits he intends to use as to which we've  
16 objected. We've, in fact, objected to a large number of their  
17 demonstrative exhibits.

18 I take it from what he has said is that he not  
19 intending to use most of the demonstratives as to which we have  
20 objected.

21 MR. MINTON: That's correct.

22 THE COURT: What are the two you're intending to use?

23 MR. MINTON: 020141, Your Honor, and 020128.

24 THE COURT: 128?

25 MR. MINTON: Yes. With respect to the first --

1           THE COURT: Just a minute. Let me look at the  
2       objection.

3           (Pause) All right. Go ahead.

4           MR. MINTON: With respect to the first, it is an  
5       illustration of how one would go about calculating a relative  
6       risk in the ETS literature. It's not a new opinion.

7           And the objection was that the underlying data were not  
8       disclosed. The underlying data were disclosed. They are taken  
9       directly from Garfinkel, 1981 and to 1995, which are on  
10      Dr. Bradley's reliance list. And as a matter of fact, his  
11      written direct says that in the passage immediately below the  
12      passage that the government quotes.

13          THE COURT: And as to 020144, what's your response?

14          MR. MINTON: 020128 is the other one, Your Honor, and  
15      all that does, on the left side of the chart take data that is  
16      not objected to and on the right side of the chart, place it  
17      into context, for the purpose of illustration only, the relative  
18      risks that were estimated by Dr. Samet in his direct testimony  
19      and in IARC 2002, which is a document that the United States has  
20      not objected to.

21          So it's simply an illustration that takes data that is  
22      not objected to and simply compares it to estimates of  
23      association that Dr. Samet has made, that have been made in  
24      various meta-analyses that are marked as reliance materials, and  
25      that are made in IARC 2002 which is not objected to, either.

1           MR. KLONTZ: Your Honor, unless you're willing to  
2     consider my motion for an en banc reconsideration of your  
3     earlier rulings just now --

4           THE COURT: En banc reconsideration. Is that me and  
5     me?

6           MR. KLONTZ: Yes, it would be, Your Honor. I think  
7     there's no real reason to belabor arguments on these points.

8           THE COURT: All right. The objections are overruled.

9           Now before you all go to lunch, I want to look over  
10    some other things. Needless to say, everybody, that testimony  
11    was extremely challenging. I felt like I was taking the  
12    Berkeley seminar for federal judges on statistics in about --  
13    how many pages? 160 -- no, not quite.

14          MR. KLONTZ: 142.

15          THE COURT: Thank you. 142. Each one was, I don't  
16    want to say a struggle, but interesting.

17          I'm going to be asking him some questions to begin  
18    with, and I believe that there was one exhibit that he referred  
19    to that I could not find in his testimony. Page 29. Actually,  
20    it wasn't a demonstrative.

21          Excuse me. Page 29, line 10, says the demonstrative  
22    below illustrates one possible outcome, et cetera. There is no  
23    number given for that demonstrative. What is given at line 17  
24    is simply a Joint Defendants' Exhibit. I didn't have it  
25    anywhere.

1           MR. MINTON: I apologize, Your Honor. The  
2 demonstrative is actually over on the next page, at the top of  
3 page 31, and that's 020141, which we discussed, actually.

4           THE COURT: All right. I don't believe there are any  
5 other matters that you all can answer for me now.

6           I'd like you, Mr. Minton -- I don't know your witness,  
7 of course, and I don't know his manner of testifying. I would  
8 just ask that he go slowly. And it is very helpful to me if, to  
9 the extent possible, he can refer in his direct examination to  
10 the particular places in his direct written testimony that he is  
11 talking about. I have obviously been over that very carefully  
12 and I just think it would be easier to follow that way.

13          MR. MINTON: Well, recognizing that the testimony does  
14 cover highly technical statistical features, Your Honor, the  
15 whole point of the live direct will be to try to put that in a  
16 big picture context for Your Honor.

17          THE COURT: All right. Everybody, let's come back at  
18 five of 2:00, please.

19          (Lunch recess began at 12:38 p.m.)

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## 9 CERTIFICATE

10 I, EDWARD N. HAWKINS, Official Court Reporter, certify  
11 that the foregoing pages are a correct transcript from the  
12 record of proceedings in the above-entitled matter.

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15 Edward N. Hawkins, RMR

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UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	.	
	.	
Plaintiff,	.	Docket No. CA99-02496
	.	
v.	.	
	.	
PHILIP MORRIS USA, et al.,	.	Washington, D.C.
	.	March 14, 2005
	.	
Defendants.	.	
. . . . .	.	

VOLUME 75  
AFTERNOON SESSION  
TRANSCRIPT OF BENCH TRIAL PROCEEDINGS  
BEFORE THE HONORABLE GLADYS KESSLER,  
UNITED STATES DISTRICT JUDGE

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Scott L. Wallace, RDR, CRR  
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1                   AFTERNOON SESSION, MARCH 14, 2005

2                   THE COURT: Good afternoon, everybody.

3                   MR. MINTON: Good afternoon.

4                   THE COURT: Counsel, I certainly want to proceed with this  
5 witness at this time. There are some scheduling issues, I  
6 gather, or not just scheduling, but issues, and we'll take those  
7 up at about 4:15 or so or 4:20, depending on how the testimony  
8 goes. So why don't we proceed, please.

9                   MR. MINTON: Thank you, Your Honor.

10                  (EDWIN LUTHER BRADLEY, JR., DEFENDANTS' WITNESS, SWORN)

11                  DIRECT EXAMINATION OF EDWIN LUTHER BRADLEY, JR., Ph.D.

12                  BY MR. MINTON:

13                  Q. For the record, I'm Mike Minton for Lorillard Tobacco  
14 Company, and would you state your name for the record,  
15 Dr. Bradley?

16                  A. Yes. My name is Edwin Luther Bradley, Junior.

17                  Q. Dr. Bradley, do you have up on the witness stand with you  
18 your written direct examination that was filed in this case?

19                  A. Yes, I do.

20                  Q. And are there any changes or corrections that you would  
21 like to make to that written direct examination?

22                  A. Since I submitted it, I found two minor corrections I  
23 would like to point out.

24                  MR. MINTON: With the Court's permission, may we simply  
25 read those into the record, Your Honor?

1 THE COURT: You don't want to make them now?

2 BY MR. MINTON:

3 Q. Well, Dr. Bradley, would you testify to what they are,  
4 please?

5 A. Yes. On page 121, the answer starting on page 26 (sic)  
6 says "The report cited the same five USA spousal studies/  
7 foreign spousal studies that were cited in the 1986 Surgeon  
8 General's Report." There should be an extension to that  
9 sentence that says, "except the NRC report included Buffler,  
10 1983, and excluded Woo, 1985."

11 THE COURT: Now, wait, what page did say you're on?

12 THE WITNESS: I started on page 121 at the bottom and I  
13 went over to page 122, and I was adding this at the very end of  
14 the sentence that ends on line 1.

15 THE COURT: Thank you.

16 BY MR. MINTON:

17 Q. Is there anything else, Dr. Bradley?

18 A. The other thing I found was on page 125, line 12. "ETS"  
19 on that sentence should be "EPA".

20 Q. All right. Having made those changes, do you adopt that  
21 testimony as your written testimony in this case?

22 A. Yes, sir, I do.

23 MR. MINTON: At this time, Your Honor, we would offer  
24 Dr. Bradley as an expert in biostatistics.

25 THE COURT: Yes, he may be accepted.

1           MR. BRODY: Your Honor, is it possible to reserve a  
2    decision on that until after the cross-examination? There are  
3    some issues we want to address on that?

4           THE COURT: That's possible. I have done that on many  
5    occasions.

6           MR. BRODY: Thank you.

7    BY MR. MINTON:

8    Q.     Dr. Bradley, before we discuss the specifics of the work  
9    you did, can you briefly describe what it is that you set out to  
10   accomplish in your work in this case?

11   A.     Yes. What I set out to accomplish was to examine the  
12   epidemiological studies that address the question of whether ETS  
13   is related to an increased risk of lung cancer and heart disease  
14   and determine if those studies either confirm or did not confirm  
15   whether such association existed.

16   Q.     And have you prepared a series of demonstrative exhibits  
17   that help to illustrate some of the key concepts and components  
18   of your written direct testimony?

19   A.     Yes, sir, I have.

20   Q.     All right. Well, let's discuss the method you used in  
21   this case in reaching your opinions first. And Jamey, could you  
22   please bring up JDEM 020165, please?

23           MR. MINTON: And Your Honor, I know you wanted us to try  
24   to track some things to pages in the written direct, and what  
25   we're going to explore, just in the next few minutes, is the big

1 picture of what is addressed at pages 18 through 45, and then  
2 we're going to drill down into some narrower topics.

3 THE COURT: All right.

4 BY MR. MINTON:

5 Q. Dr. Bradley, does JDEM 020165 help to illustrate the  
6 method of your analysis in this case?

7 A. Yes, sir, I believe it does.

8 Q. All right. The left side of that demonstrative is  
9 entitled: "Scientific method for assessing validity of  
10 association" and you have listed underneath that category called  
11 biostatistical factors. In plain English, what is the category  
12 of things that you are describing under biostatistical factors?

13 A. These are the category of factors that are needed to  
14 determine whether or not we're able to establish a valid  
15 association between ETS exposure and increased incidence of,  
16 say, lung cancer or heart disease.

17 Q. Why did you select these particular factors for your  
18 method of analysis?

19 A. Well, we have to go to the -- actually the bigger  
20 question we would like to answer, which is, does ETS or exposure  
21 to ETS cause lung cancer or heart disease? A predicate for that  
22 is you must first establish that there's an association between  
23 ETS exposure and an increase in these diseases, and these  
24 factors then address the question of whether you can compute or  
25 have you computed a valid association between ETS exposure and

1 lung cancer.

2 Q. I would like to explore briefly the relationship between  
3 the left side of the chart and the right side of the chart.  
4 Let's say, if we had an epidemiologic study, or a series of  
5 epidemiologic studies, that provide some estimate of an  
6 association, from the biostatistical viewpoint, what are the  
7 types of things that could help create that association?

8 A. Well, if you have an association, there's only one, or a  
9 combination of one of four different things that can lead to  
10 that association. Number one, the exposure that you're looking  
11 at, to actually cause the disease.

12 Secondly, the inflated or elevated risk estimate that you  
13 have may be due to problems with the state of designs that are  
14 being used to measure this association. They would be called  
15 biases.

16 Thirdly, you could have, for example, another type of  
17 bias, some people call it confounding, which are other variables  
18 or factors which, in fact, cause the disease that happen to be  
19 related to the exposure that you're measuring.

20 And then lastly, you have random variation, those two are  
21 what are called nonrandom or systematic variation, and then  
22 there's random variation we call chance which refers to the fact  
23 that you're unable to examine everybody that has these conditions  
24 that you're using a sample of the population. And the fact that  
25 you're using a sample introduces random variation of the results.

1 Q. As we work our way through your analysis, will we be  
2 able, then, to take the right side elements of the chart and  
3 track them to, or correlate them with, left side elements of the  
4 chart?

5 A. Yes.

6 Q. Well, let's start with that. The first factor that you  
7 have, biostatistical factor that you have listed there, is  
8 "statistical significance", and this is a concept that begins to  
9 be discussed, Your Honor, at page 25.

10 THE COURT: I'd like to go back a minute to what I see as  
11 a more fundamental question. In your testimony, you have  
12 certainly defined epidemiology and biostatistics. My question  
13 is, how do you differentiate those two disciplines, and would  
14 you -- is it fair to say that in a certain way biostatistics is  
15 really an essential component of epidemiology?

16 THE WITNESS: Well, I agree with the last statement.

17 THE COURT: Okay.

18 THE WITNESS: The difference is an epidemiologist could be  
19 an investigator that's interested in studying certain types of  
20 diseases or disease processes in human population. And he may be  
21 familiar with the literature and he may be familiar with certain  
22 facts that he thinks might be associated with those diseases, but  
23 he's not necessarily the best person to design the study, that  
24 is, he's not equipped, necessarily, to be able to draw the  
25 appropriate sample, to make sure all the appropriate controls are

1 in place, so that you get a valid sample, and so that when you  
2 run your study you will actually have measured what you intend to  
3 measure. So, a biostatistician is one that then aids in the  
4 design of the study, and obviously, the biostatistician must  
5 become familiar, somewhat familiar, with the area to design the  
6 study, and the biostatistician would possibly help design the  
7 data collection formed and then, of course, the biostatistician  
8 would know the appropriate methods and methodology to analyze the  
9 data, and that's really the next step. And then finally, and  
10 this has always been my experience, you sit down then with  
11 whoever the researcher is, epidemiologist, physician, whoever,  
12 and then you help them interpret what the results are from that  
13 study.

14 THE COURT: Go ahead, please.

15 BY MR. MINTON:

16 Q. Dr. Bradley, in plain English, or in simplest terms,  
17 could you describe what the biostatistical factor or test of  
18 statistical significance is designed to do? What's the concept  
19 and the overall purpose?

20 A. Well, the concept of statistical significance is to  
21 assure us with some confidence that we have minimized the random  
22 spurious influence that may arise in a study, which I've denoted  
23 by chance. So that addresses that particular question.

24 Q. Now, this may be a bit technical, but is there a specific  
25 question or hypothesis that's being tested with this



1 biostatistical factor of statistical significance?

2 A. Yes.

3 Q. And what is that?

4 A. It's what's called a null hypothesis, or a hypothesis of  
5 no difference. That is, when you set up a study, you're  
6 assumption that you're operating under is, for example, the  
7 disease that has the exposure has the same instance of disease  
8 as the group that does not have the exposure, that's what you're  
9 testing. Your assumption is that they're the same or there's  
10 null. And the alternative is there is some difference in these  
11 two groups, so statistical significance allows you to either  
12 reject that null hypothesis, that is say that it's not true, or  
13 you're unable to reject it.

14 Q. Can you put the test of the null hypothesis in the  
15 context of something that we're going to be discussing in a  
16 little while, that's the odds ratio or the relative risk?

17 A. Correct if the null hypothesis is that the rate of  
18 disease in the unexposed group is the same as the exposed group,  
19 and the relative risk is designed as the ratio of those two  
20 rates, then clearly the null hypothesis is that the relative  
21 risk would be unity, or one. It would be center of the odds  
22 ratio, your assessment of the odds ratio would be unity or one.

23 Q. We'll discuss the concept of a point estimate as well,  
24 but a point estimate as one means no difference between groups,  
25 right?

1 A. What we're testing in the hypothesis is what the true  
2 association is, but it's unknown. What we measure in a study is  
3 a point estimate for that study, and if that point estimates  
4 turns out to be one that meant that the instance rate in a study  
5 for the exposed group was the same for the instance group in the  
6 study for it is unexposed group.

7 Q. All right. And is there an established scientific  
8 standard or convention that -- at what level there has been, as  
9 you phrased it, some minimum assurance that the influence of  
10 chance has been minimized?

11 A. Yes. The standard level is 5 percent level of  
12 significance or that state is conversely sometimes as a  
13 95 percent confidence level.

14 Q. All right. Now, you used the term "validity" and you  
15 used the term "valid" in connection with the term "association",  
16 both in this chart and in your testimony. Does a statistically  
17 significant result indicate that the association is valid?

18 A. No, sir.

19 Q. Why not?

20 A. Well, there are -- the nonrandom or systematic components  
21 of the estimate, which we briefly discussed earlier, with the  
22 bias or the confounding which can cause an elevated risk and so  
23 just because you have a set that's not equal to 1, you've  
24 rejected that, doesn't mean that that increase is then due to  
25 the exposure.

1 Q. All right. Is that because it could be due to the  
2 variety of other items that you've listed there under "spurious  
3 influences" on the right side of the chart?

4 A. Yes.

5 Q. All right.

6 THE COURT: Can you have a statistical significance --  
7 excuse me, let me state this better. Can you have a point  
8 estimate of 1 that may still not be valid?

9 THE WITNESS: Yes. I know your question. You could have  
10 a statistical point estimate that's 1 and that still may not be a  
11 valid estimate, that's correct.

12 THE COURT: Because of confounding factors?

13 THE WITNESS: Yes, ma'am.

14 THE COURT: I'm going to be interrupting probably a fair  
15 amount, but it's better that I interrupt and understand your  
16 answers than that I just allow Mr. Minton to go forward.

17 BY MR. MINTON:

18 Q. Well let's say we had a point estimate that's different  
19 from 1, let's say it was 1.1 or 1.2, or 1.5, for instance, and  
20 it was statistically significantly different from 1. Does that  
21 mean the association is valid?

22 A. No.

23 Q. And is that because those other spurious influences can  
24 still be playing a part?

25 A. Yes.

1 Q. All right. Let's move to another item that you have on  
2 the left side of 020165, and that's meta analysis. Can you  
3 briefly describe what meta analysis is and what it does?

4 A. All right, meta analysis is a general term that's used to  
5 describe a method whereby you combine results from various  
6 studies into one summary result. And the idea being that you  
7 want to increase what's called "the statistical power of the  
8 analysis." That is, you want to act like you have one large  
9 study rather than, say, many smaller studies. And so meta  
10 analysis then addresses the question of statistical significance  
11 by combining results from different studies.

12 Q. All right. You have a heading entitled: "Problems under  
13 meta-analysis." Are there problems either in the implementation  
14 or interpretation of meta-analysis?

15 A. Yes. Meta-analysis was designed to combine very similar  
16 types of studies, so studies are very homogenous. You run into  
17 problems with the studies are heterogeneous, and that can be  
18 such things as different populations being studied, different  
19 types of designs, different types of analytical techniques and  
20 so on.

21 Q. Did you do your own meta-analysis in this case,  
22 Dr. Bradley?

23 A. Yes, sir, I did.

24 Q. All right. And we will be discussing bias and  
25 confounding in some detail later on. Does meta-analysis offer

1 any protection against the influence of bias and confounding in  
2 terms of the estimates it makes from the studies that it uses?

3 A. No, sir.

4 THE COURT: Would it be fair to say that meta-analysis  
5 either perpetuates or perhaps even intensifies the confounding  
6 influences?

7 THE WITNESS: That's excellent, yes, I would agree with  
8 that.

9 BY MR. MINTON:

10 Q. All right. Dr. Bradley, have you prepared demonstratives  
11 that summarize the results of your various biostatistical  
12 analyses?

13 A. Yes, sir.

14 Q. All right. And is there one in particular that you would  
15 suggest that we use as an example? If we're not going to use  
16 them all during the live direct, is there one that you would say  
17 would be a good one to use?

18 A. Yes. I'd use the lung cancer disease and the household  
19 exposure to ETS studies.

20 Q. Jamey, could you please bring up 020161. All right, is  
21 that the exhibit that you had in mind?

22 A. Yes, it is.

23 Q. All right. Could you tell us what group or groups of  
24 studies are reflected on this exhibit?

25 A. Well, actually the exhibit does both the -- summarizes

1 results for both the household and workplace exposure studies,  
2 but we'll emphasize the household since those are the -- that  
3 group is the largest studies that are available.

4 Q. Are there similar exhibits that you've included in your  
5 written testimony that pick up other groups and other  
6 associations?

7 A. Yes, sir, there are.

8 Q. All right. And could you describe how those are broken  
9 out?

10 A. Well, we had two diseases, lung cancer and heart disease,  
11 so there's charts on both of those. We had two sources, primary  
12 sources of exposure, household and workplace, so there are  
13 summary results on those. And then we had two different types  
14 of studies, domestic and foreign, so there's charts on those.

15 Q. All right. We'll just use this one so that the Court  
16 understands your method of analysis and how these charts piece  
17 together and how they fit together in your testimony. But  
18 looking at 020161, could you summarize your findings on  
19 statistical significance and your meta-analysis results in the  
20 grouping at the top of the chart, which is the household  
21 exposures, and the association between ETS and lung cancer?

22 A. Yes. Well, first of all, note that there are available  
23 17 studies that were done on that particular exposure and  
24 disease. There were 24 relative risks, because some of the  
25 studies reported separate results for males and females. And so

1 the first line that I have called "statistical significance"  
2 shows a number of those studies, the "yes" means one study was  
3 statistically significant, the 23 were not.

4 THE COURT: And does that mean that only one of those 17  
5 studies satisfied a 95 percent confidence level?

6 THE WITNESS: Yes, ma'am. And it's also important to note  
7 that that means that, you know, if you look at it this way,  
8 96 percent of these studies did not satisfy that.

9 THE COURT: I understand that.

10 THE WITNESS: What I'm saying is that you would expect one  
11 of them to reject it just due to chance. In other words, at a  
12 95 percent level, that means 5 percent are going to reject even  
13 if there is no difference in the results.

14 BY MR. MINTON:

15 Q. All right. How about your result for meta-analysis in  
16 these studies?

17 A. Well, since those were individual studies and some of  
18 them could have been small, you know, small studies, then I did  
19 perform a meta-analysis by combining the results from all 24  
20 relative risks. The summary relative risks from combining all  
21 of those studies was 1.08 and it was not statistically  
22 significant which, if you take both of those together, clearly  
23 these do not pass the statistical significance test, the first  
24 hurdle that you must make to establish an association.

25 Q. All right. Let's go back to your methods chart, 165, you

1 didn't stop at statistical significance even though you found  
2 that criterion was not met, correct?

3 A. That's correct.

4 Q. All right. And you have listed as the next  
5 biostatistical factor "strength of the association". What areas  
6 on the right side of 020165 does strength of the association  
7 relate to? What -- how does that biostatistical factor relate  
8 to any of the areas on the right?

9 A. Well, that relates to the T systematic components that  
10 could be introduced, the biases of the confounders. So the idea  
11 of the strength of association is you must have a magnitude of  
12 the relative risks that's large enough so that you're assured --  
13 not assured, but that you are confident that the biases and  
14 confounders are not what are causing most of the elevation.

15 Q. All right. Well, how do biases or confounding find their  
16 way into epidemiologic studies?

17 A. Well, it's strictly due to the type of studies that one  
18 must run to measure this risk. If I can sort of progress  
19 slightly, the gold standard study for investigating saying  
20 exposure with a disease is what's called a randomized pinnacle  
21 trial. That would be a case where you took a large group of  
22 individuals and you would randomly assign them to an exposed or  
23 unexposed group. Now, this is generally used to test such  
24 things as efficacy of drugs and things of that type. We cannot  
25 do that for the ETS exposure situation. So we're forced to use



1 what are called observational studies. As we're forced to use  
2 groups that occur naturally; that is, people who live with  
3 smokers, people who don't live with smokers; people who work  
4 with smokers, people who don't work with smokers. So these  
5 groups have not been assigned by an investigator, and by not  
6 being able to assign them, you cannot control certain variables  
7 to the extent you can in the clinical trial, you cannot  
8 randomize out all these other differences in the groups so that  
9 they are sort of equally represented.

10 Q. If we look at the right side of the chart under the  
11 category of "bias", you have some illustrations or points there.  
12 Could you provide some examples of bias or the bias  
13 biostatistical problems that bias creates in the ETS literature?

14 A. Well, there are many of them, but we can talk about a few  
15 of these. One of them is just the measurement of exposure  
16 itself. In other words, what we do not have in these studies is  
17 an actual measure of exposure. We do not know how much ETS or  
18 environmental tobacco smoke or passive smoke an individual is  
19 associated with.

20 Q. Why is that?

21 A. Because we only have a proxy that we use, and our proxies  
22 are such things as, are you married to a smoker, do you work  
23 with a smoker, or maybe a question, do people smoke in your home  
24 or do people smoke at work. So, first of all, we don't even  
25 have -- we don't have the actual ETS, we have a proxy that we

1 hope is correlated with that particular proxy that we're  
2 measuring and, of course, there's not a perfect correlation  
3 there.

4       Secondly, we don't even get the information, necessarily,  
5 from the individual who is exposed. For example, in many of  
6 these studies we're studying such things as death from lung  
7 cancer or death from cardiac events. Clearly the information  
8 cannot be obtained from the individual who had the disease, so a  
9 proxy will then provide that information. That may be a  
10 relative, that may be a friend, something like that. So we have  
11 another level that we have to introduce. So that's one type of  
12 bias that we have with.

13 Q.     All right. You have another one, "recall bias", what is  
14 that?

15 A.     Recall bias occurs primarily in what are called the case  
16 control studies, the primary type of studies that's been used to  
17 investigate the relationship of ETS and these various diseases.  
18 And that study you have two groups of individuals which are  
19 going to compare the exposure rate in. You have the cases, or  
20 individuals that actually had the disease, and you have the  
21 controls, those are individuals that do not have the disease.  
22 When you have a case something in exposure like ETS, especially  
23 if it's been well publicized that smoking causes cancer and some  
24 other diseases, it's human nature that individuals are always  
25 searching for what has caused my problem, why am I sick, why am

1 I ill. So the cases will generally tend to overstate the amount  
2 of -- first of all overstate they had exposure and overstate the  
3 amount of the exposure, because they have an interest in trying  
4 to determine why they have the disease they have. On the other  
5 hand, the controls are healthy individuals, healthy in regard to  
6 the disease that you are looking at. They don't have the same  
7 incentive, they tend to under report the estimate of exposure.

8 Q. All right. You mention a concept called  
9 "misclassification" in your written direct. What is that, and  
10 is that a problem in the ETS literature?

11 A. Right. And then probably one of the biggest sources of  
12 biases is what's called this "misclassification bias", and there  
13 are several types of that, but we're referring specifically to  
14 the fact that these studies are supposed to study individuals  
15 that were never-smokers. That is, you take lung cancer cases  
16 that were never-smokers and you are comparing their exposure to  
17 never-smokers who do not have lung cancer. The problem is, some  
18 individuals that are never-smokers are misclassified -- were  
19 misclassified. They were, in fact, either ex-smokers or current  
20 smokers, that is, some type of ever smoker, and since we know  
21 that active smoking is related to these diseases, and we know  
22 there's a differential in misclassification, and that that would  
23 more likely occur in the disease group as an important source of  
24 bias in these studies.

25 Q. Just to make clear, you said there's differential

1 misclassified and it's likely to impact one way. Could we be  
2 sure we understand what you're saying. Which way does that bias  
3 point in the ETS literature?

4 A. Well, what that will do is tend to elevate the relative  
5 risks, to put it in those terms.

6 Q. All right. You have "confounding" listed under "biases",  
7 and what is that?

8 A. Well, confounders are other factors or variables that  
9 individuals can have that are causes of the disease and are  
10 associated with exposure and they tend to give, then, an  
11 elevated risk which is real but not due to the factor that  
12 you're looking at.

13 Q. Are there acknowledged confounders in the ETS literature?

14 A. Yes, there are.

15 Q. All right. Let's go back to the big big picture from the  
16 right side of the chart.

17 THE COURT: And let me just interject. Would you include  
18 as a confounder genetic history, for example?

19 THE WITNESS: Yes, I would. Actually, family history,  
20 that type of thing, is important, yes.

21 BY MR. MINTON:

22 Q. In terms of the biggest picture, Dr. Bradley, how, if at  
23 all, does strength of the association, or lack of strength,  
24 relate to the issues of bias and confounding that you have on  
25 the right side of the chart?

1 A. Well, the strength of association refers to the actual  
2 magnitude of the relative risk. And it's well recognized by  
3 everyone that the smaller the observed relative risk you have in  
4 these studies, the more likely there are influences of bias or  
5 confounders that are causing this relative risk. That's just a  
6 fact. Conversely, the larger the relative risk is the less  
7 likely -- we're not saying they don't influence it, but it's  
8 less likely to explain the bulk of the relative risk. So we  
9 won't -- if we have small relative risks, like we're examining  
10 here, it's very easily explained in many cases by biases and  
11 confounders.

12 Q. You say "small relative risks", what is the approximate  
13 strength of the association that has been estimated between ETS  
14 and lung cancer and heart disease?

15 A. Well, it varies, but a lot of the estimates are like from  
16 about 1.1 up to about 1.3.

17 Q. All right. Now, on the right side of the chart there's  
18 an entry for "statistical noise". What is that?

19 A. Well, statistical noise is just another way to express  
20 all the spurious influences, both the random and nonrandom  
21 components. I put it in this chart because Dr. Samet, in his  
22 testimony, actually referred to separating the noise from the  
23 signal, which in our case is a valid relative risk. So I wanted  
24 to put that concept in also.

25 Q. All right. Have you put together some demonstratives

1 that help to illustrate the challenge separating signal from  
2 statistical noise in the ETS literature?

3 A. Yes, sir, I believe I have.

4 Q. All right. And do those examples also help to illustrate  
5 the combined influences of the spurious influences that you have  
6 on the right side of the chart?

7 A. Yes, sir.

8 Q. All right. Let's take the --

9 THE COURT: Let me ask another question. Could  
10 statistical noise be properly and accurately described as the  
11 area between the plus or minus 5 percent that is included in the  
12 95 percent confidence level? Do you understand my question?

13 THE WITNESS: Random variation is part of it, but not all  
14 of it.

15 THE COURT: I see.

16 THE WITNESS: I think you're saying within the interval  
17 does that include all the statistical noise?

18 THE COURT: Correct.

19 THE WITNESS: Not necessarily, it only includes the random  
20 noise.

21 THE COURT: I see, okay.

22 BY MR. MINTON:

23 Q. In other words, what is referred to as "chance" on the  
24 chart, but not necessarily bias and confounding?

25 A. That's correct.

1 Q. All right. Let's use the example of lung cancer and if  
2 the association that's being investigated is the relative risk  
3 of lung cancer from ETS exposure, have you prepared a  
4 demonstrative of how a biostatistician would go about making an  
5 estimate of relative risk for ETS and lung cancer?

6 A. Yes, sir, I have.

7 Q. All right. Jamey, could you please bring up JDEM 020141?  
8 And do we have on the screen now, Dr. Bradley, the  
9 demonstrative that you had in mind?

10 A. Yes, sir, we do.

11 MR. MINTON: And, Your Honor, this is the same  
12 demonstrative that you mentioned this morning on page 31.

13 THE COURT: And this is at page what?

14 MR. MINTON: 31.

15 BY MR. MINTON:

16 Q. All right. First, will you explain what the concept is  
17 that's being illustrated in this demonstrative? And let's begin  
18 with who it is that's being compared.

19 A. All right. This demonstrative is sort of a demonstration  
20 of a study that one might run if one wanted to measure the  
21 difference between -- the effects, say, of exposure to ETS and  
22 the increase incidences of lung cancer. And this would be an  
23 example of what's called a cohort or prospective study. And in  
24 this particular case, we would have two naturally occurring  
25 groups. We would take, say, 10,000 people that were unexposed

1 to spousal smoking or smoking at work, and they're  
2 never-smokers, obviously, and we would follow them for 10 years,  
3 which would give us 100,000 person years of exposure. Now, we  
4 could run a study, say, that was 20,000 people for five years,  
5 but the point is, let's suppose you wanted a state that has  
6 100,000 person years in it, this is one way we would do it.

7 Q. Is 100,000 person years a standard biostatistical method?

8 A. That is a standard metric, right.

9 Q. Now, can you describe for the Court, how the 1.2, the 14,  
10 and the 17 all relate to each other in this chart?

11 A. Correct. Well, the numbers are not arbitrary. The 14  
12 actually represents the lung cancer incidence among  
13 never-smokers as computed from both the CPS-I and CPS-II  
14 studies, and it's approximately 14 per 100,000 so I'm  
15 assuming -- I'm saying, for example, we ran this study we might  
16 get 14 people over a 10-year period of time that would develop  
17 lung cancer that were never-smokers.

18 Q. Out of 100,000 person years?

19 A. Person years, that's 10,000 for 10 years. Now the 17  
20 comes from -- the next thing we have, we have 1.2 times higher,  
21 that's not arbitrary either. Dr. Samet mentioned that as one  
22 estimate of the relative risk for developing lung cancer among  
23 females married to male smokers. And that's a 20 percent  
24 increase. All right, so 20 percent of 14 is approximately 3.  
25 So, we're not going to observe fractional people, so in our



1 exposed group of 10,000 people, people that are, say, married to  
2 a smoker that we follow for 10 years, we might observe 17 lung  
3 cancer deaths. Those are the kinds of numbers we're talking,  
4 these are actual kinds of numbers we're talking about observing.  
5 Now, our daunting task is to validly attribute those three  
6 additional lung cancer deaths that occurred in the exposed group  
7 to the ETS exposure.

8 Q. All right. And have you prepared other demonstratives  
9 that help illustrate what you said was this daunting  
10 biostatistical challenge in terms of validly attributing those  
11 three cases of lung cancer out of 100,000 person years of  
12 exposure?

13 A. Yes, sir.

14 Q. All right. Jamey, could you please bring up 020126? And  
15 is that one of those demonstratives, Dr. Bradley?

16 A. Yes, it is.

17 Q. All right. It appears that you put different periods of  
18 years on the bottom of the X-axis and you have "absolute risk"  
19 on the Y-axis. What is it that this demonstrative is  
20 illustrating?

21 A. Well, this demonstrative illustrates what's called a  
22 "constant risk". Dr. Burns, Dr. Samet and I all agree that the  
23 never-smoking lung cancer rate for the past 20 to 25 years is  
24 constant. Now, that -- what do we mean by constant? We know  
25 that there are various differences that can occur due to

1 different segments of that population we might choose to look  
2 at. Because we don't have the entire sample, we're taking  
3 samples of it.

4 So these risks are computed from -- as I said, the CPS-I  
5 and the CPS-II, the largest studies run by the American Cancer  
6 Society represent well over a million person years of exposure.  
7 And for '60 to '64, if you look at just that small period of  
8 time and took the data they had, you'd have a risk of 12.5 per  
9 100,000 never-smokers that develop lung cancer. For the next  
10 4-year period it would be 18.5.

11 Q. Okay. So there's a difference in six cases?

12 A. In other words, we got six. And then it drops back down  
13 in '68 to '72 to 15.8.

14 Q. Well, how do the differences on this chart relate to the  
15 chart, the 041 chart that we just looked at?

16 A. Well, here we have much larger studies --

17 THE COURT: Where do we have much larger studies?

18 THE WITNESS: Not studies, we have much larger data on  
19 this chart right here, this 126, JDEM 126.

20 THE COURT: Because it's a hundred -- no, because it's a  
21 larger period of time?

22 THE WITNESS: Well, several things. Here, this is  
23 actual -- the other was an experiment I could run where I took  
24 10,000 people. This is actual data that's been collected by the  
25 American Cancer Society on hundreds of thousands of people over

1 -- in CPS-I over a 12-year period of time and CPS-II over a  
2 6-year period of time. So when you average -- count all that up  
3 you've got well over a million person years involved here.

4 But, the point is, this chart of just the base rate among  
5 never-smokers varies if we break it up in say 4- to 6-year  
6 increments from 12 and a half to 15 and a half and that's a  
7 difference of 6 per 100,000. So just background noise can  
8 account for 6 per 100,000.

9 BY MR. MINTON:

10 Q. All right. Did you create another demonstrative that  
11 then puts the background variation in never-smoker lung cancer  
12 rates in terms of relative risk?

13 A. Yes, sir.

14 Q. All right. Jamey, could you please bring up JDEM 020127?

15 A. Now, this chart is the other chart where I've taken as  
16 the baseline or the base period 1960 to '64 and divided into  
17 each of those various other values. So, for example, obviously  
18 if I take 12.5 and divide it by 12.5 I get 1. Similarly for '64  
19 to '68, if I take the 18.5, divide it by the 12.5 I get 1.48 and  
20 so on. So this is just a standardization, or relative risk,  
21 relative to the base period of 1960 to '64 and puts it in  
22 relative risk terms, the kinds of things that we're talking  
23 about in this particular litigation.

24 THE COURT: All right. Now, I'm going to ask you to slow  
25 down at this point. Certainly when I was reading these, I'm not

1 sure I understood the difference between 20127 and 20126. I  
2 certainly understand what 20126 is, but I would like you to go  
3 over 20127 again, because I think it's very important. You did  
4 what now on 20127?

5 THE WITNESS: Well, if you put these two charts sort of  
6 side-by-side, I see you do have them side-by-side there -- you  
7 look, for example, the 1960 to '64 period, we'll call that our  
8 base period, okay. And it's just the kind of thing you do for  
9 like consumer price index you choose some sort of base period as  
10 a standard period and then you divide that number into each of  
11 the other numbers or into all the other numbers. So, for  
12 example, all I did was take the 12.5 and divide it into every  
13 number on 126. So, for example, 12.5 divided by 12.5 is 1. The  
14 base period is going to have a 1. The next period is the 18.5  
15 divided by the 12.5, which is the 1.48.

16 And then similarly, the '62 to '72 is 15.8 divided by  
17 12.5.

18 THE COURT: And the figure that you come out with, the  
19 percentage you come out with, is your relative risk; is that  
20 right?

21 THE WITNESS: Right, exactly, so, for example, relative  
22 risk represents a ratio between two risks.

23 Now, the reason I put it in this context is you can  
24 actually see when you look at 126, the difference between 12.5  
25 and 18.5 is approximately 50 percent. I mean, it's a six

1 difference, the base is 12, approximately, so 6 over 12 is  
2 50 percent, okay.

3 Now, it's more easily seen when you go to the relative  
4 risk chart because I've already done the division for you. So,  
5 for example, the second one is 1.48, that is approximately a  
6 50 percent increase. So we have a relative risk here of up to --  
7 in other words, the point of the 127 is, for a 25-year period of  
8 time, which we all agree is a constant risk, the rates, if you  
9 partition them up into various groups of years, can vary as much  
10 as 50 percent. That's just background noise.

11 BY MR. MINTON:

12 Q. And if we take, then, the two exhibits at the top, which  
13 explore the issue of the background variation in incidence or  
14 risk over time and then compare it to the original  
15 demonstrative, 020141, what's the bottom line of this group of  
16 illustrations?

17 A. Well, the bottom line of this group of illustrations are  
18 that background noise can account for 50 percent variation, as  
19 we've seen in the never-smoker rates. Yet we're trying to  
20 attribute a 20 percent increase of exposure to ETS -- 20 percent  
21 increase in relative risk to an exposure to ETS validly  
22 attributed.

23 Q. Did you also, then, create a demonstrative, Dr. Bradley,  
24 that puts this background variation among lung cancer rates in  
25 never-smokers into the specific context of ETS estimates for

1 lung cancer and heart disease?

2 A. Yes, sir, I did.

3 Q. All right. And Jamey, could you please bring up 020128?

4 What does the illustration in 020128 show, Dr. Bradley?

5 THE COURT: Where is that?

6 MR. MINTON: That's on page 103 of the written direct,

7 Your Honor.

8 MR. BRODY: And, Your Honor, I understand, you've  
9 indicated that you would find this helpful, I would just preserve  
10 for the record the objection that everything that we've had here  
11 today -- and I haven't objected for that reason, is directly out  
12 of the written direct. Not only are these demonstratives in the  
13 written direct, but the exact same explanations that we're  
14 getting here are in the written direct, but if it's helpful for  
15 the Court, that's fine.

16 THE COURT: First of all, it's helpful. Second of all, as  
17 I think I've said before, on some of the one hour directs, I  
18 can't be diplomatic about it, people don't use their time very  
19 well in terms of what is useful to me, but on some of the very  
20 technical materials, it is certainly very helpful to me to have  
21 the direct gone over, perhaps, in less formal language. It  
22 provides an opportunity for questions by me or counsel, and  
23 certainly in this one in particular, it is helpful. No question  
24 on this one. So go ahead, please.

25 MR. MINTON: Thank you, Your Honor.

1 BY MR. MINTON:

2 Q. Dr. Bradley, what's being illustrated in 020128?

3 A. Well, what I've done is I've taken the chart, which I'll  
4 re -- the 127 chart, placed it to the left, and that's  
5 statistical noise, just the inherent background noise that  
6 exists in lung cancer rate among never-smokers over a 25-year  
7 period of time, of which Dr. Samet and Dr. Burns and I all agree  
8 represents a constant risk, or actually, no change. So in other  
9 words, up to 50 percent change in background represents no  
10 change.

11 And on the right-hand side I have placed the relative risk  
12 for the diseases, lung cancer and heart disease, that Dr. Samet  
13 says represent a valid increase in the risk for exposure to ETS.  
14 And those risks are from anywhere to 24 to 37 percent, and he  
15 claims those represent real differences when he's willing to say  
16 that a 50 percent increase does not represent a real difference.

17 Q. Jamey, if we could go back to 020161.

18 Dr. Bradley, could you please describe your overall  
19 results for the strength of association factor of your analysis?

20 A. Right. Well, I also took 24 relative risks and I wanted  
21 to see if they were large enough so we would have some  
22 confidence that statistical noise that we've talked about, the  
23 biases -- excuse me, part of the statistical noise the bias and  
24 confounders could not have led to the elevated risks, and for  
25 those I compared to see if they were greater than two or not,

1 and in that particular case there was only one relative risk  
2 that exceeded two. So, once again, 96 percent of them did not  
3 meet the strength of association criteria.

4 Q. All right. And we're not going to go back through each  
5 group of studies that you analyzed, but you did the same sort of  
6 analysis and reported the results similarly, then, for each  
7 group and each disease, correct?

8 A. Yes, sir, I did.

9 Q. All right. And in terms of applying a factor of strength  
10 less than 2.0, did you also include in your direct examination  
11 charts that look at strength from the perspective of a strength  
12 of association of 1.5?

13 A. Yes, sir, I did.

14 Q. Okay. Now, below the strength criterion, you have an  
15 entry where you've combined strength and statistical  
16 significance. Why did you consider those two significant  
17 biostatistical factors in a combined setting?

18 A. Well, that's statistical noise that Dr. Samet referred  
19 to, so together they make up statistical noise.

20 Q. All right. And what were your results of your analysis  
21 of looking at the ETS data in this group? In other words, the  
22 household lung cancer studies applying that combined criterion?

23 A. None of the studies met that criterion.

24 Q. Okay. The next factor or criterion that you have there,  
25 Dr. Bradley, is "consistency", and if we could go back to the



1 020165 demonstrative, Jamey, just for a second, please. What  
2 right side influences is consistency of association looking at?

3 A. Well, it's actually looking at all of them. What you  
4 have to have is -- we've applied each result, say, to one study,  
5 the statistical significance and the strength association. And  
6 what you would want to have to show consistency is you would  
7 have similar results study after study after study. That is, if  
8 there is a valid association, it would be statistically  
9 significant of such magnitude that you could be confident that  
10 you've eliminated -- not eliminated but reduced the effect of  
11 the biases and confounders.

12 Q. All right. Is there a demonstrative that you prepared  
13 that helps to illustrate your analysis of the biostatistical  
14 factor of consistency?

15 A. Yes, sir.

16 Q. Jamey, could you please bring up 020133? And this is on  
17 page 57 of Dr. Bradley's written direct, Your Honor.

18 How does 020133 illustrate data that are relevant to your  
19 analysis of consistency, Dr. Bradley?

20 A. Well, this is simply a plot of each individual point  
21 estimate from all the 24 relative risks that I examined.  
22 There's two colors there. If the color is red, it meant the  
23 result was statistically significant. If it's blue, it is not.

24 So, first of all, you can see they are virtually all not  
25 statistically significant, so we hardly have to go further, but

1 also, it's very important to note, they're really not consistent  
2 because nine studies came up with a point estimate, just a point  
3 estimate, that was one or below, which indicated there was  
4 absolutely no increased risk. 9 of 24 is almost 40 percent of  
5 the study showed no increased risk, and the other study showed  
6 some increased risk, but only one of them had a value that even  
7 approached a level where you could confidently feel that a bias  
8 and confounders were not the influencing factor, but it wasn't  
9 significantly significant.

10 So I think this chart shows very very well that there is  
11 no consistency in the chart that's been obtained. The vast  
12 majority are not significantly significant and a substantial  
13 number don't show an elevated risk.

14 Q. Dr. Bradley, you have addressed a number of differences  
15 in the method that you use compared to the method Dr. Samet  
16 testified about in his written direct, and I don't want to go  
17 back through those now, but I would like to put up one of  
18 Dr. Samet's charts, and that's U.S. Exhibit 17168. Is that a  
19 chart that you have included and discussed in your written  
20 direct?

21 A. Yes, sir, it is.

22 Q. All right. And could you tell the Court, what do the  
23 vertical bars on that chart represent?

24 A. All right. Well, first of all, this is his chart, and  
25 the first thing I want to point out is all these red dots are

1 point estimates, and just because they're red on this chart does  
2 not mean they're statistically significant, they're just a  
3 method to point out the red dot.

4 But what the vertical bars represent are not the magnitude  
5 of risk. What the red bars represent is the imprecision of the  
6 estimate. That is, the larger or the longer those bars are, the  
7 more imprecise the estimate is, or conversely, the shorter or the  
8 narrower the bars are the more precise the estimate. Another way  
9 of looking at it is the large bars are from very small studies.  
10 The very short bars are from much larger studies.

11 Q. Is there any other relationship between the height of the  
12 bars that's important that's illustrated in this graph?

13 A. Yes. I think that you -- it's worthwhile to note to look  
14 at the shortest bars of the graph, which refer to the largest  
15 studies, those relative risks are all right about unity, right  
16 about 1. So if you take the largest studies that were done,  
17 those all tend to be not statistically significant and clustered  
18 about the null line of 1.

19 THE COURT: Did you make up this particular demonstrative  
20 or this particular exhibit?

21 THE WITNESS: No, this is Dr. Samet's exhibit.

22 THE COURT: This is out of what?

23 THE WITNESS: Dr. Samet. This is U.S. --

24 THE COURT: You're right.

25 MR. MINTON: 17168, Your Honor.

1           THE COURT: I'll say this, there may have been some color  
2   added to it, I don't know if that's true, but other than that  
3   it's his exhibit.

4   BY MR. MINTON:

5   Q.     Dr. Bradley, did you review the chart that Dr. Samet  
6   included in his trial testimony concerning the findings of  
7   various public health agencies about the relationship between  
8   ETS and lung cancer?

9   A.     Yes, sir, I did.

10   Q.    All right. If we could bring up Dr. Samet's chart, 17308  
11   at page 2. Is that the chart that you had in mind?

12   A.     Yes, sir, it is.

13   Q.    And are there differences in the biostatistical analysis  
14   or approach that the various public health agencies have taken  
15   when compared to the biostatistical approach you took in this  
16   case?

17   A.     Yes.

18   Q.    All right. And did you prepare demonstratives  
19   illustrating that as well?

20   A.     Yes, sir, I did.

21   Q.    Rather than going through each one of them, is there one  
22   in particular that you think would be a good example?

23   A.     Well, we can -- I think a good example is the 1992 EPA  
24   Report.

25   Q.    All right. Jamey, then, if you could bring up 020150.

1 And is this the chart that you had in mind, Dr. Bradley?

2 A. Yes, it is.

3 Q. You testified earlier about the biostatistical factors  
4 that you have used. Did EPA consider statistical significance  
5 in their assessment of the ETS lung cancer risk, and if so, how  
6 did they do that?

7 A. Well, they did, but they didn't do it in the manner that  
8 I did or that I think was necessarily appropriate. First of  
9 all, they used a nonconventional 90 percent level confidence  
10 interval in the 1992 EPA Report. I'm using a 95 percent level.

11 THE COURT: What was their justification for that? I've  
12 heard a great deal in this testimony about the 90 and 95 percent  
13 confidence levels. I'm well aware that there was a great deal of  
14 criticism of EPA for changing the standard, or what is generally  
15 the standard confidence level. What, if you can say, was EPA's  
16 explanation or rationale for doing that?

17 THE WITNESS: Of course I can't get in their heads, I  
18 don't know, I can only go by having examined both the 1990 EPA  
19 Report and the '92 Report, and it's my opinion that --

20 THE COURT: Did they state specifically in any public  
21 document what their rationale was, because I don't expect you to  
22 get into their heads either.

23 THE WITNESS: They stated -- they stated at one time, they  
24 had stated that they felt like you could not have a reduced risk  
25 with exposure to ETS, so therefore, that was not a possibility

1 that the relative risk could be less than 1, it could only be  
2 greater than 1, and consequently, they wanted to look only at the  
3 increase, but that's not the scientific approach one takes.

4 They clearly used a 95 in 1990 when they had their draft  
5 that they present. They clearly had a 95, it says so in the  
6 table, it says so throughout the text. They changed it, and the  
7 only reason I think they may have changed it is because they felt  
8 like when they got more studies, the relative risk might be  
9 decreased and it might not meet the criteria of 95. I don't know  
10 that, but that would be the only reason to change it.

11 MR. BRODY: Your Honor, I would move to strike the  
12 speculative testimony about the reason.

13 THE COURT: I feel compelled to strike it.

14 MR. BRODY: Thank you.

15 THE COURT: We'll leave it at that. Go ahead, please.

16 BY MR. MINTON:

17 Q. Would the result that EPA reported in 1992 have been  
18 statistically significant if they had used the standard  
19 5 percent -- or 95 percent confidence interval?

20 A. I don't know. I haven't done that computation. They  
21 didn't do that computation.

22 Q. All right.

23 A. I do know this -- well, there's several points about the  
24 statistical significance even at 90 percent that we need to  
25 address because, let's accept the fact they're going to use the

1 90 percent level except for the fact they assume it's a valid  
2 method to use. First of all, their risk estimate was only based  
3 on the spousal studies for the United States, that is, they did  
4 not run a combined relative risk over all countries, they did  
5 them separately by countries because they state there was a  
6 heterogeneity problem, which I agreed with, so their estimates  
7 were based on the U.S. studies.

8 Now, of the spousal studies they had available -- not that  
9 they had available, they used, there were 11 of them. Only one  
10 of which was statistically significant. All right. If you're  
11 running a 90 percent confidence level, you would expect 1 out of  
12 10 to be statistically significant. They got 1 out of 10. Then  
13 they went to, okay, so you can't get statistical significance  
14 looking at individual studies then they went to a meta analysis.  
15 The meta-analysis they came up with was statistically significant  
16 at their 90 percent level, however, it's very, very, very  
17 important to note there were two additional studies they had  
18 available to them in 1992, they were aware of these studies,  
19 they're cited in their report, they spend a page discussing, but  
20 for some reason did not include them in their meta-analysis.

21 Now, we know for a fact from deposition testimony of  
22 Dr. Kenneth Brown, who did this analysis and the analysis for  
23 OSHA, they're identical analyses. The only difference in those  
24 two analyses are he included those two new studies and an updated  
25 estimate for Fontham, which is really basically the same

1 estimate. We know when those studies were included the result  
2 dropped to 1.09 and was not statistically significant even at the  
3 90 percent level.

4 So had they used all the studies available to them, they  
5 would not have gotten a statistically significant result.

6 Q. What about your review of spurious influences compared to  
7 the EPA's, did your method differ from EPA's?

8 A. Yes. Well, actually, EPA, once again, changed their  
9 method. First of all, the only spurious influence, other than  
10 chance, that they examined was misclassification bias. And they  
11 made a slight adjustment for that in their results. Now, it's  
12 important to note the following, if you go back to the 1990  
13 draft, they had a method for computing miss -- besides using a  
14 95 percent confidence level, they had a method for estimating  
15 misclassification bias alone. And in that report they stated  
16 that any relative risk up to 1.19 was consistent with a relative  
17 risk of 1, that is, it was not statistically -- there was no  
18 difference between those values due to misclassification bias  
19 alone.

20 Q. Just that one bias?

21 A. Just that one. Now, they changed their technique for  
22 estimating misclassification bias and came up with a much  
23 smaller bias in the 1992 paper.

24 Q. Dr. Bradley, I would like to end where we began, and  
25 Jamey, if you could just bring up 020165. The right side of



1 that chart refers to challenges opposed by the ETS studies and  
2 the data, and you discussed some of those. When it comes to  
3 assessing the validity of the association between ETS and lung  
4 cancer and heart disease, have those challenges been met and  
5 those problems solved in the ETS epidemiologic literature?

6 A. No, sir, they have not.

7 Q. All right. And if we go back to Dr. Samet's chart at  
8 17308, page 2 of 10, where Dr. Samet refers to findings over a  
9 20-year period of time, have you prepared an illustration based  
10 on Dr. Samet's chart that illustrates the biostatistical  
11 challenges or problems that have been acknowledged in the ETS  
12 literature over that same time period?

13 A. Yes.

14 Q. All right. And is that JDEM 020154?

15 A. Yes, sir, it is.

16 Q. All right. And your chart begins in 1984. Why did you  
17 begin there?

18 A. Well, that's the year that Dr. Samet wrote a paper that  
19 discussed the same problems that we're addressing today.

20 Q. All right. Did Dr. Samet --

21 A. Where he expressed his opinion.

22 Q. Did he describe any biostatistical problems or challenges  
23 in the ETS literature as of 1994?

24 A. Yes.

25 Q. All right. Jamey, could you bring up 020155?

1           What did Dr. Samet say?

2   A.       He -- we can actually all read it, but he made the  
3   comment that the available evidence doesn't present -- permit us  
4   to make some definitive judgments. That is, we have difficult  
5   methodological problems, such as the quantifying the dose, and  
6   he said unimpeachable data will be difficult to obtain.

7   Q.       All right. The next item you had on your chart was the  
8   1990 EPA draft. What did EPA describe as any biostatistical  
9   challenges or problems in the ETS literature as of 1990?

10           Jamey, if you could go to 020156, please.

11   A.       Well, this, once again, is what I think I've already  
12   alluded to. They mention in this particular case the  
13   misreporting bias, or that is, the misclassification bias we  
14   discussed earlier, saying that overall, overall summary relative  
15   risks, up to 1.19, are consistent with true relative risk of 1.  
16   So they're saying, if you have a relative risk up to 1.19,  
17   misreporting bias alone could explain it.

18   Q.       All right. You have two entries on the chart for 1994,  
19   1995 for the Congressional Research Service. Did they make any  
20   statements or findings about the methodological challenges or  
21   problems in the ETS literature?

22   A.       Yes.

23   Q.       Jamey, could you please bring up 020157?

24   A.       All right. That is Congressional Research Report that in  
25   1994 just simply made the statement that "the link between

1 passive smoking and disease" and it's saying any disease "is  
2 uncertain".

3 Q. Did they amplify if a that at all in 1995?

4 A. Yes, they did.

5 Q. Could you bring up 020158?

6 A. They filed another report in '95 where they, once again,  
7 point out the major problems with epidemiological results, the  
8 confounders and the misclassification, and they state that those  
9 two things could account for all the measured risk values that  
10 people are noting in these studies.

11 Q. I believe the final entry on your illustration was 2003  
12 and Smith. Who is Smith?

13 A. Dr. Richard Smith was at that time the editor of what I  
14 consider a prestigious medical journal, the British Medical  
15 Journal, and he was writing on the issue of passive smoking and  
16 disease.

17 Q. All right. And Jamey, could you bring up 020159.

18 A. He was writing on the question of the relationship  
19 between ETS and whether it causes disease.

20 Q. And did Dr. Smith in 2003 describe any biostatistical  
21 problems or challenges in the ETS literature?

22 A. Well, first of all, he said it hadn't been answered. And  
23 secondly, he said it's a hard question, and he said the methods  
24 to answer that question are inadequate.

25 Q. All right. My last question, Dr. Bradley: Where we

1 stand today, have the challenges been met and have the data  
2 shown a valid association between ETS in either lung cancer or  
3 heart disease?

4 A. No, sir.

5 MR. MINTON: Thank you, Dr. Bradley.

6 THE COURT: Mr. Brody, we'll certainly take a break now.  
7 I think that you told me last week that you anticipated two hours  
8 of cross; is that right?

9 MR. BRODY: Yes, and that's still about where we're at, so  
10 if we take our break now, I guess we could probably do the first  
11 hour before we hit the procedural issues that you indicated you  
12 wanted to address, and then we'll finish up in the morning.

13 THE COURT: Do you think you can do cross in two hours?

14 MR. BRODY: Yes.

15 THE COURT: Okay.

16 MR. BRODY: I hope so.

17 THE COURT: We'll take a 15-minute recess, everybody.

18 (Thereupon, a break was had from 3:02 p.m. until 3:19  
19 p.m.)

20 THE COURT: All right, Mr. Brody, please.

21 CROSS-EXAMINATION OF EDWIN LUTHER BRADLEY, JR., Ph.D.

22 BY MR. BRODY:

23 Q. Good afternoon, Dr. Bradley.

24 A. Good afternoon.

25 Q. Twice during the hour of live examination that Mr. Minton

1 just had, you referred to things that you said that you,

2 Dr. Samet and Dr. Burns all agreed on, correct?

3 A. I don't know how many times, but it was a couple of  
4 times, yes.

5 Q. Now, at the time of your deposition in this case, in  
6 2002, you didn't even know who Dr. David Burns was and you were  
7 unable to say whether you had ever read anything that Dr. Burns  
8 had written, correct?

9 A. That sounds correct, yes.

10 Q. I'm sorry, that was a yes?

11 A. Yes.

12 Q. And similarly, at the time of your deposition in this  
13 case, you were not at all familiar with Dr. Samet's professional  
14 reputation, were you?

15 A. Well, I said I was familiar with some of his work. I  
16 don't remember what I said about his reputation.

17 Q. Well, we can hand you a copy of the deposition from this  
18 case, May 16th, 2002, United States versus Philip Morris, and  
19 we'll get you a copy. And I'm going to ask you to take a look  
20 at page 132 of that deposition. It's a U.S. deposition.

21 If I may approach, Your Honor?

22 THE COURT: Yes, you may.

23 BY MR. BRODY:

24 Q. And if you would, turn to page 132. And I want to look  
25 at lines 16 through 22. You said you believed you had read some

1 articles Dr. Samet had written. You were asked: "Are you at  
2 all familiar with his professional reputation?"

3 And your answer was: "No."

4 Is that right?

5 A. Yes, sir.

6 Q. And that testimony was under oath?

7 A. Yes, sir, it was.

8 Q. Now, Dr. Bradley, you're familiar with the epidemiologist  
9 Kenneth Rothman, correct?

10 A. I'm familiar with his work, yes.

11 Q. He's the editor of the journal Epidemiology, right?

12 A. That's correct.

13 Q. And he wrote the textbook Modern Epidemiology, didn't he?

14 A. He co-authored the book, I think, with Mr. Greenland.

15 Q. And he is quoted in your direct testimony within the  
16 Taubes article from Science that is marked as JD 023276,  
17 correct.

18 A. Yes, that's correct.

19 Q. Now, Rothman's textbook -- and we'll come back to the  
20 Taubes article, but we're going to hand you a copy of that  
21 now -- textbook Rothman's is one of the leading texts in the  
22 feed field of epidemiology, right?

23 A. It is a -- yes, it is. Yes.

24 Q. And I want to hand you a copy of his book. It's JD  
25 003150.

1           We're going to be handing your copies up from the back,  
2   due to the length of some of these things.

3           MR. MINTON:   Okay.

4   BY MR. BRODY:

5   Q.       Do you recognize this, Dr. Bradley, as a copy of  
6   Rothman's book, Modern Epidemiology?

7   A.       It appears to be one, yes.

8   Q.       You may have come across it when you were still a  
9   professor down in Birmingham, Alabama, right?

10   A.       Well, I'm familiar with the text, yes.

11   Q.       Now, in it, he has a chapter on causation and causal  
12   inference.  And I'd like you to turn to page 24.  Let me know  
13   when you're there.

14   A.       Okay.  I'm there.

15   Q.       We see the heading "Causal Criteria" in the middle of the  
16   page.  Do you see that?

17   A.       Yes.

18   Q.       Now --

19            If we could pull that out, Charles.

20            -- what Rothman does is he lists Hill's criteria from  
21   1965, which were an expansion of what appeared in the 1964  
22   Surgeon General's Report, doesn't he?

23   A.       Right.  That's -- Hill's criteria are an expansion of  
24   what was in the 1964 Surgeon General's Report, correct.

25   Q.       Now, those criteria were identified by the Surgeon

1 General in the 2004 Report and you cite them in your written  
2 direct testimony at page 21, correct?

3 A. That's correct.

4 Q. But you specifically note in your testimony, I believe,  
5 that you do not use all of the criteria from the Surgeon  
6 General's Report, correct?

7 A. That's correct.

8 Q. And in fact, you're not qualified to use all of the  
9 criteria, are you?

10 A. That's correct. I'm not an expert in biological  
11 plausibility; that's correct.

12 Q. Let's take a look -- we're going to come back to  
13 Rothman's, so hold on to that, but I want to -- and we'll  
14 actually come right back to that page, so you might want to save  
15 that page, but I want to take a look at the 2004 Surgeon  
16 General's Report. And we're going to give you a copy of that.  
17 That's U.S. Exhibit 88847. And that is in evidence.

18 And I want you to page through that to page 23. We're  
19 also going to put it up on the big screen, so ...

20 A. 23?

21 Q. Yes, sir. Page 23.

22 A. I'm there.

23 Q. Okay. Now, the Surgeon General indicates, under the  
24 heading "Applying the Causal Criteria": "The process of  
25 applying the criteria extends beyond simply lining the evidence



1 up against each criterion. Rather, the criteria are used to  
2 integrate multiple lines of evidence coming from chemical and  
3 toxicologic characterizations of tobacco smoke and its  
4 components, epidemiologic approaches and clinical  
5 investigations. Those applying the criteria weigh the totality  
6 of the evidence in a decision-making process that synthesizes  
7 and, of necessity, involves a multidisciplinary judgment."

8 Did I read that correctly?

9 A. Yes, sir, you did.

10 Q. Do you disagree with the Surgeon General?

11 A. Well, I -- it's not that I disagree with what he said  
12 there, but I think important to note is what he said on page 21.

13 Q. All right. Well, we're going to come back to the report.  
14 But we will, if you would like -- we can take it back over from  
15 the table there if you want to clear some space; we'd be happy  
16 to just hold that in the jury box for you, if it would make it  
17 easier. If not, you're welcome to keep it there; that's fine,  
18 too.

19 Now, Hill -- when we refer to "Hill's criteria," Hill was  
20 the epidemiologist, Bradford Hill, right?

21 A. That's correct.

22 Q. I assume you're aware that Hill worked with Sir Richard  
23 Doll on some of the epidemiological investigations that,  
24 combined with experimental and biologic evidence, established  
25 smoking as cause of lung cancer in the early 1950s, correct?

- 1 A. He worked with active smoking; that's correct.
- 2 Q. And he worked with Sir Richard Doll, correct?
- 3 A. That's correct.
- 4 Q. And together, they participated in some of the landmark
- 5 epidemiological investigations on the subject of smoking and
- 6 health, correct?
- 7 A. That's correct.
- 8 Q. Would it be fair to say that Sir Richard Doll is one of
- 9 the world's most famous epidemiologists?
- 10 A. Well, he is a well known epidemiologist; I will agree
- 11 with that.
- 12 Q. And he's also a physician, correct?
- 13 A. That's correct.
- 14 Q. Now, are you aware that Hill, who identified the causal
- 15 criteria that you cite from the Surgeon General's 2004 Report,
- 16 discussed significance testing in the 1965 Proceedings of the
- 17 Royal Society of Medicine that are cited by the Surgeon General
- 18 himself?
- 19 A. It's been a while since I've seen that, but I have seen
- 20 it at one time.
- 21 Q. Well, we'll give you a copy of it. It's U.S.
- 22 Exhibit 39802.
- 23 Do you recognize this document as the Proceedings of the
- 24 Royal Society of Medicine containing Hill's nine criteria?
- 25 A. Yes.

1 Q. Now, I want to focus on page 299, so if you could turn,  
2 please, to page 299.

3 A. Okay.

4 Q. And we're going to focus first on the first full  
5 paragraph on that page. And there Hill indicates that his nine  
6 criteria are: "Nine different viewpoints, from all of which we  
7 should study association before we cry causation. What I do not  
8 believe, and this has been suggested, is that we can usefully  
9 lay down some hard-and-fast rules of evidence that must be  
10 obeyed before we accept cause and effect. None of my nine  
11 viewpoints can bring indisputable evidence for or against the  
12 cause and effect hypothesis and none can be required as sine qua  
13 non. What they can do with greater or less strength is to help  
14 us to make up our minds on the fundamental question: Is there  
15 any other way of explaining the set of facts before us? Is  
16 there any answer equally or more likely than cause and effect?"

17 Did I read that correctly?

18 A. Yes.

19 Q. And do you disagree with Bradford Hill?

20 A. Well, actually, no, because I think his first sentence  
21 says we should study association before we cry causation. And I  
22 think that's the point I was trying to make that the Surgeon  
23 General makes: That you must have a valid association before  
24 you go and apply any of these other criteria.

25 Q. Now, what Hill goes on to say in the following

1 paragraph -- we can pull that up for you -- is that: "No formal  
2 tests of significance can answer those questions. Such tests  
3 can and should, remind us of the effects that the play of chance  
4 can create and they will instruct us in the likely magnitude of  
5 those effects. Beyond that, they contribute nothing to the  
6 proof of our hypothesis."

7 And I assume, based on your testimony, that you disagree  
8 with Hill?

9 A. Well, I disagree with this. He's saying that they can't  
10 prove the hypothesis of causation, but he's not saying that it  
11 can't eliminate the fact that it's not there.

12 No, he's not -- what he's saying, in my opinion, is just  
13 because you have a statistically significant valid association  
14 doesn't imply causation. And that's a known fact. Association  
15 does not imply causation, even if it's present.

16 Q. We're going to come back to that.

17 Would you agree that both Hill and the Surgeon General  
18 differ from what I'll call the Bradley test that we see in your  
19 testimony?

20 A. I disagree with that.

21 Q. Let's go back to Rothman. Now, Rothman, JD 003150 -- and  
22 again, this is on page 24, where we were before -- points out --

23 And this is in the last indented paragraph there on the  
24 page, Charles. No, the indented paragraph, under the number 1.

25 Now, Rothman notes that Hill argued that: "Strong

1 associations are more likely to be causal than weak

2 associations," right?

3 A. That's correct.

4 Q. At the same time, however, Rothman points out: "As Hill

5 himself acknowledged, the fact that an association is weak does

6 not rule out a causal connection," correct?

7 A. I would agree with that.

8 Q. And he provides some examples of weak associations that

9 are causal, noting that: "Cigarette smoking is not seriously

10 doubted as a cause of cardiovascular disease. Another example

11 would be passive smoking and lung cancer, a weak association

12 that few consider to be noncausal," correct?

13 A. That's what he says and I, of course, disagree with that.

14 Q. He does not indicate that there is any cutoff point where

15 one can say that an association is too weak to be causal, does

16 he?

17 A. No, but that --

18 Q. That's fine. He doesn't say that, does he?

19 A. He doesn't say that.

20 Q. Now, there is no categorical statement from Rothman like

21 your strength of association test, applying a standard of 2.0 as

22 an absolute measure for assessing epidemiological studies, is

23 there?

24 A. He does not give a bright line test; that's correct.

25 Q. And you hold a categorical view on the subject, which you

1 told us about in your expert report, correct?

2 A. That's correct.

3 Q. And we're going to hand you a copy of that. That's U.S.  
4 Exhibit 93172.

5 THE COURT: This is the -- I see, the Amended Expert  
6 Report. Okay.

7 MR. BRODY: Yes, Your Honor.

8 BY MR. BRODY:

9 Q. And I want you to -- first, that is your Amended Expert  
10 Report in this case, correct?

11 A. Yes, it appears to be.

12 Q. I want you to turn to page 3 and look at paragraph 17.  
13 You said: "I regard relative risks below 2.0 as too weak to  
14 support a conclusion that an exposure is associated with a  
15 disease." That's your opinion, correct?

16 A. That's my opinion, yes.

17 THE COURT: Is that the generally accepted criteria in the  
18 field of biostatistics?

19 THE WITNESS: Well, there is no set rule, but there's a  
20 lot of literature that suggests 2. For example, Wynder wrote  
21 some information on it and talked about it, too. There are  
22 several others.

23 You can have different benchmarks, depending on the kind  
24 of studies you have. The point I'm trying to make here with this  
25 is, in the context of the studies we have for the ETS; that is,

1 with the problems we're faced with with the bias and the  
2 confounders, especially with the ETS that is here, that I believe  
3 2 is an appropriate benchmark.

4 BY MR. BRODY:

5 Q. You said there is no --

6 THE COURT: Set rule.

7 BY MR. BRODY:

8 Q. -- set rule, right?

9 A. Right. There's no set rule.

10 Q. Right. But you in your expert report do have a set rule.  
11 You, Edwin Bradley, regard "relative risk below 2.0 as too weak  
12 to support a conclusion that an exposure is associated with the  
13 disease," right?

14 A. That is correct.

15 Q. Okay. Now, let's, just for comparison sake, look at U.S.  
16 Exhibit 93173. And this is a study in The New England Journal  
17 of Medicine that looks at the impact of high normal blood  
18 pressure on the risk of cardiovascular disease, right?

19 A. Yes.

20 Q. And if you turn to page 2 and look briefly under  
21 "Methods," you see that the study was based on the Framingham  
22 Study, right?

23 A. That's correct.

24 Q. Now, go back to page 1 and we see that high normal blood  
25 pressure in the right-hand column, second paragraph, is defined

1 as systolic pressure between 130 and 139 or diastolic pressure  
2 between 85 and 89, correct?

3 We have it up on the screen as well, Dr. Bradley.

4 A. Correct. I see that.

5 Q. Now, would the conclusion --

6 A. What page is that on?

7 Q. That's the first page, right-hand column, second  
8 paragraph. Are you there?

9 A. Yes.

10 Q. Okay. Now, the conclusions contained in the abstract on  
11 the first page indicate the author's conclusion that: "High  
12 normal blood pressure is associated with an increased risk of  
13 cardiovascular disease," right?

14 A. That's correct.

15 Q. And if you go a little bit up from that, where the  
16 conclusions are, you'll see that that's based on a risk factor  
17 of 2.5 for women and 1.6 for men, correct?

18 A. Correct.

19 Q. Now, if we were to accept your categorical view, we would  
20 have to reject the author's conclusion that high normal blood  
21 pressure is associated with an increased risk of cardiovascular  
22 disease in men, wouldn't we?

23 A. Not necessarily.

24 Q. Okay.

25 A. I would have to examine the kind of study that was done



1 here, which I think is a cohort study, which I think is a fairly  
2 large study. And I would have to see how they determine  
3 their -- what parameters they set to determine their study size.

4 Q. Okay. So in this case, you wouldn't rule out saying that  
5 Ramachandran and Vasani (sic), the authors -- lead authors -- are  
6 wrong here in The New England Journal of Medicine, would you?

7 A. No, I'm not saying that their conclusion is incorrect.  
8 No.

9 Q. Okay. Let's take a look at another piece in The New  
10 England Journal of Medicine that involved large number of  
11 subjects and that's the He study. That's JD 02895.

12 And I'll tell you what. I'm going to give you my copy of  
13 that because I don't think we have one up here. And I want you  
14 to tell me roughly how many people were involved, and I think  
15 it's on the second page; we can put it up on the screen.

16 THE COURT: Is this the same article, Mr. Brody?

17 MR. BRODY: No, this is a piece by Dr. He on --

18 We can go back to the first page, Charles.

19 -- "Passive Smoking and the Risk of Coronary Heart  
20 Disease: A Meta-Analysis of Epidemiologic Studies."

21 THE COURT: Okay.

22 BY MR. BRODY:

23 Q. And if you would go to page 2 and look at the studies  
24 that he considered in his meta-analysis --

25 Charles, if you can pull that up.

1           -- those were also very large studies, including  
2   Kawachi's use of the Nurse's Health Study, 1997, which involved  
3   32,046 female nurses age 36 to 61, correct?

4           That was the Nurse's Health Study?

5   A.     Right, but --

6   Q.     And that's the data that Kawachi looked at, correct?

7   A.     Yes, but --

8   Q.     If there's a qualification, Mr. Minton will have time to  
9   do redirect and if there is something that you want to add about  
10  the study that doesn't come out in the course of my questioning,  
11  I'm sure that Mr. Minton will ask you those questions.

12           MR. MINTON: Your Honor, if I could make my objection,  
13  Mr. Brody switched the question two questions ago. He said those  
14  are large studies in table 1 and then in the same question, he  
15  switched it to a question solely about the Kawachi Study and --

16           THE COURT: I thought the witness answered both questions.

17           MR. BRODY: The witness did answer both questions, Your  
18  Honor, and the questions were clear.

19  BY MR. BRODY:

20  Q.     The Hirayama Study, Japan, 1984, looked at 91,540 women,  
21  correct?

22  A.     That's correct.

23  Q.     Now, if we go back to the previous page, the first page  
24  of the article, and we look at the "Results" section on the  
25  left-hand column -- I apologize; it's a little blurry, but this

1 is the copy that was provided to us by defendants -- we see that  
2 Kawachi found that overall, nonsmokers exposed to environmental  
3 smoke -- environmental smoke had a relative risk of coronary  
4 heart disease of 1.25 with a 95 percent confidence interval  
5 between 1.17 and 1.32, as compared with nonsmokers not exposed  
6 to smoke.

7 Those were his findings, correct?

8 A. Yes. That's based on his meta-analysis; that's right.

9 Q. Right. And under the Bradley test that we see in your  
10 Expert Report, we would reject that because it's below 2.0,  
11 correct?

12 A. Well, we would reject it because there's no evidence that  
13 he's controlled for any bias or confounders when he did his  
14 meta-analysis.

15 Q. We'll come to that. While we have Rothman, let's look at  
16 Rothman on approaches to statistical analysis. You still have  
17 the Rothman text?

18 A. Yes.

19 Q. And I want to go to Chapter 12 which starts at page 183.  
20 Let me know when you're there.

21 A. Okay.

22 Q. And you'll see that Rothman traces, if you will, the --  
23 sort of the history of approaches to statistical significance  
24 and indicates that: "The Neyman-Pearson hypothesis testing and  
25 the British applications had come under growing criticism by

1 epidemiologists and statisticians throughout the 1970s and  
2 1980s. The critics pointed out that most, if not all,  
3 epidemiologic associations (sic) need more than a decision as to  
4 whether chance alone could have produced an association."

5 Right?

6 A. Yes, sir.

7 Q. Now, would you please turn forward to page 191, because  
8 there Rothman comments on an example. And he indicates that:  
9 "Any one P-value" --

10 Now, as we saw in your written testimony and for the  
11 benefit of the Court, a P-value of, for example, 0.05 would be  
12 an indication that you were using a 95 percent confidence  
13 interval, correct?

14 A. Yes, sir.

15 Q. And a P-value is always between 0 and 1, correct?

16 A. Wait a minute. A P-value is always between 0 and 1 by  
17 definition, yes.

18 Q. Exactly. You subtract the P-value from 1 and that gives  
19 you the percent confidence interval, correct?

20 A. No. Well, P-value is not a significance level. P-value  
21 is computed from the data. Significance level is something that  
22 you determine probably before you run the experiment.

23 Q. Exactly.

24 A. So the confidence interval would be the inverse of the  
25 significance level.

1 Q. Exactly. And a P-value between 0 and 1 subtracted from 1  
2 will allow you to figure a confidence interval, correct? I  
3 mean, just numerically. Let me ask the question this way.  
4 Numerically --

5 A. Well, then, you're incorrect.

6 Q. Well, we can come back to that, too. Now, Rothman --  
7 Rothman indicated that any one P-value, no matter how explicit,  
8 fails to convey the descriptive finding that the exposed  
9 individuals had about -- this is in his example -- "three times  
10 the rate of disease as unexposed subjects. Furthermore, exact  
11 95 percent confidence limits for the true ratio are about 0.7 to  
12 13. The fact that the null value, a rate ratio of 1, is within  
13 the interval, tells us the outcome of the significance test.  
14 The estimate of affect would not be statistically significant at  
15 the 1 minus 0.95 equals 0.05 alpha level. The confidence  
16 limits, however, indicate that these data, although  
17 statistically compatible with no association, are even more  
18 compatible with a strong association."

19 First of all, did I read that correctly?

20 THE COURT: Second question is: Is that written in the  
21 English language?

22 BY MR. BRODY:

23 Q. Second question, Dr. Bradley, do you disagree with the  
24 statement that confidence limits, while indicating the data are  
25 statistically compatible with no association, can be even more

1 compatible with a strong association?

2 A. Well, I don't agree with that strong a statement of that.

3 What I agree with, it's a -- that the confidence level --

4 Q. Go ahead. I'm sorry.

5 A. Do you mind if I --

6 That the confidence level gives those values for which  
7 you could not reject a null hypothesis. And the most important  
8 one in there is the no association. That is, you cannot  
9 eliminate chance as an explanation for those results.

10 Q. I don't think I got an answer specifically -- maybe I  
11 did.

12 I take it from that that you do disagree with Rothman  
13 that confidence limits, while indicating the data are  
14 statistically compatible with no association, can be even more  
15 compatible with a strong association?

16 A. I disagree that that's -- that it would have to be more  
17 compatible with. It's compatible with -- no association is  
18 compatible with a strong association. There's nothing that you  
19 can determine from those data.

20 Q. So you disagree with Rothman, correct?

21 A. I disagree with him.

22 Q. Okay. Thank you.

23 MR. MINTON: Objection, Your Honor. Asked and answered.

24 BY MR. BRODY:

25 Q. Let's return briefly to the subject of the Taubes article

1 for a minute. Now, that's something that's cited a few places  
2 in your written direct testimony and that's JD 023276, right?

3 A. Yes.

4 Q. And I think you refer to it as "an influential article"  
5 and offer it "to support your views on what we can learn about  
6 strength and association," correct?

7 A. That's correct.

8 Q. Now, do you know anything about Mr. Taubes?

9 A. No, I don't.

10 Q. Do you know that his first name is Gary, Gary Taubes?

11 A. I think I knew that.

12 Q. He was and he is a freelance writer who has written on  
13 things like the political science of salt?

14 A. Well, I mean, he may have written on other topics; I  
15 agree with that.

16 Q. Are you aware he writes for publications like Discover  
17 and Nature and is a contributor to The New York Times and The  
18 Washington Post as a freelance journalist?

19 A. No, sir.

20 Q. Are you aware that he's known -- fairly well known for an  
21 article in the New York Times that expressed his view that the  
22 government was responsible for obesity by the promotion of low  
23 fat diets?

24 A. No, sir.

25 Q. Now, the article that you cite in several places is a

1 piece that Taubes wrote as a correspondent for Science, right?

2 A. Well, he submitted this article, right, and wrote it for  
3 Science; that's correct.

4 Q. And it's a reporting piece and was not subject to peer  
5 review, was it?

6 A. I believe that's correct for this article; that's  
7 correct.

8 Q. And you didn't tell that to the Court when you cited it  
9 in your direct examination, did you?

10 A. No.

11 Q. Let's take a look at the authors of a couple other  
12 sources that you rely on in support of your testimony. And I  
13 would like you to turn to page 101 of your written direct  
14 examination.

15 A. I've got that.

16 Q. And there you cite, at lines 3 and 4, a paper on "Dietary  
17 and Lifestyle Correlates of Passive Smoking in Hong Kong, Japan,  
18 Sweden and the USA," which is written by Koo, Kabat, Rylander,  
19 Tominaga, Kato and Ho, correct?

20 A. Yes.

21 Q. Could you please tell the Court who Dr. Rylander is.

22 A. I don't know.

23 Q. So you --

24 A. I don't recall; I can't recall at this time.

25 Q. So you cited an article that he co-authored in your



1 written direct testimony without doing anything to figure out  
2 who he is or what his training, background or education is?

3 A. Well, I cited the article because it was in a  
4 peer-reviewed journal and discussed issues relating to the  
5 effect of confounders in the ETS literature.

6 Q. So the answer to my question is yes, you cited an article  
7 that Rylander co-authored in your written direct testimony  
8 without doing anything to figure out who he is or what his  
9 training, background or education is?

10 A. That's correct.

11 Q. Okay. Take a look -- we're going to hand you U.S.  
12 Exhibit 88632. Now, you'll see from the first page of the  
13 document, Dr. Bradley, that this is a decision of the Court of  
14 Appeals of the Criminal Division in the Respect and Canton of  
15 Geneva in Switzerland concerning -- if we go down -- Ragnar  
16 Rylander, correct?

17 A. Yes.

18 Q. And I want to go to page 12 of the decision. It's fairly  
19 lengthy, but --

20 MR. MINTON: Could I --

21 MR. BRODY: I'm sorry. We're getting it up. I'll wait  
22 until you have it.

23 I apologize for the delay, Your Honor.

24 BY MR. BRODY:

25 Q. And if you'll turn to page 12, you'll see that the Swiss

1 criminal court noted that: "An interoffice memo dated July 10,  
2 1997 addressed to Richard Carchman, Philip Morris USA, described  
3 over several pages and in full detail, compensation, activities,  
4 fields of expertise, articles and other scientific  
5 contributions, the collaboration between Ragnar Rylander and  
6 Philip Morris from 1972 and 1976." And then following that,  
7 there's -- I'm sorry; 1996.

8 Following that, there's a list of various activities  
9 during that time period, correct?

10 MR. MINTON: Your Honor, I don't know what a Swiss Canton  
11 is; I don't know if this is a Swiss criminal court. I think  
12 there were quite a few facts in there that Mr. Brody was  
13 testifying to in connection with that question. I mean, if he  
14 wants to read what's --

15 THE COURT: Is there an objection?

16 MR. MINTON: Yes, there is, Your Honor. It's an  
17 argumentative question at this point and it's based upon facts  
18 that are not in the record.

19 THE COURT: No, the objection is overruled. I didn't hear  
20 any facts that aren't in the record. The first page of the  
21 document's identify the document as emanating from a criminal  
22 court. In terms of what a Canton is, I hate to indicate my  
23 ignorance as well, that I don't know if it's a state, a county,  
24 or a city, but in any event, an official entity of some sort.  
25 But I don't think that's relevant to the question that Mr. Brody

1 asked, so the objection's overruled.

2 BY MR. BRODY:

3 Q. Dr. Bradley, do you need the question again?

4 A. I think I do.

5 Q. The question was whether page 12 of this decision  
6 indicates that an interoffice memo dated July 10, 1997 addressed  
7 to Richard Carchman, Philip Morris USA: "Described over several  
8 pages and in full detail compensation, activities, fields of  
9 expertise, articles and other scientific contributions, the  
10 collaboration between Ragnar Rylander and Philip Morris from  
11 1972 and 1996."

12 Correct?

13 MR. MINTON: I'm not trying to be an annoyance, Your  
14 Honor. I've been handed a document that is in a language that I  
15 do not --

16 MR. BRODY: Did you get both parts?

17 MR. MINTON: No. And there's some kind of certification  
18 of a translation here along with a bill for that, and then page  
19 references of a translation that I don't think refer to anything  
20 that's up on the screen right now. So I'm at a little bit of a  
21 loss to follow along.

22 MR. BRODY: Well, there's --

23 THE COURT: Well, I'll assume it's in French.

24 MR. BRODY: Let me make sure that Mr. Minton has the  
25 complete copy of that exhibit.

1 THE COURT: In English.

2 MR. BRODY: In English, correct, which is what we're  
3 looking at up here on the screen.

4 MR. MINTON: I have a language I can read now.

5 THE COURT: All right, Mr. Brody. I think we can proceed.

6 MR. BRODY: We can. We didn't get an answer to the last  
7 question.

8 BY MR. BRODY:

9 Q. Did you remember the last question?

10 A. I think you asked me, did you read that correctly?

11 Q. More or less.

12 A. Yes, you did.

13 Q. If you turn to page 13 of the decision, second paragraph  
14 from the bottom, we see that the Court found that during the  
15 course of a long consulting arrangement with Philip Morris,  
16 Dr. Rylander received -- and we can add these amounts up -- if  
17 my math is correct, \$510,000 in the 1986 to 1989 time period  
18 alone, right?

19 A. Well, I would have to add them up, but assuming your  
20 arithmetic is correct, I would agree with that.

21 Q. And the Court also found that during that time period,  
22 only FTR and the American Health Foundation were to receive  
23 more.

24 Are you aware -- well, the Court has received evidence  
25 concerning the American Health Foundation. If you look further

1 down page 101 of your written direct examination, at line 22,  
2 there's a reference to an article by Wynder and Hoffmann, right?

3 A. Let me get -- page 101?

4 Yes.

5 Q. Now the American Health Foundation, the organization  
6 cited in the Swiss court opinion, was Wynder and Hoffmann's  
7 organization, correct?

8 A. I don't recall.

9 Q. You didn't look into their background or affiliations  
10 when you decided to cite them in your written direct testimony?

11 A. No, sir, I did not.

12 Q. Who drafted the answer that appears on page -- who first  
13 drafted the answer that appears on page 101 of the written  
14 direct testimony?

15 A. I did.

16 Q. Okay. Returning to the Swiss decision at page 22, in the  
17 third full paragraph.

18 A. Okay, I'm on page 22.

19 Q. We see that the -- actually, it's the fourth paragraph.  
20 We see that the Swiss court found that "A deception that has  
21 been maintained for over 30 years, as in this case, even at the  
22 cost of lies, for example the statement Ragnar Rylander made to  
23 the European Journal of Public Health concerning the absence of  
24 conflict of interest certainly deserves to be characterized as  
25 it actually was." We continue -- Charles, if you want to pull

1 up the next paragraph as well.

2 THE COURT: What's the objection?

3 MR. MINTON: This appears to be entirely collateral, Your  
4 Honor. It's not -- the paragraph that was just read doesn't,  
5 evidently, have anything to do with the article that Mr. Brody  
6 pointed to in Dr. Bradley's written direct by Rylander. This is  
7 a reference to something completely --

8 THE COURT: Mr. Minton, the objection's overruled.  
9 Obviously, the questions go to impeach the validity and the lack  
10 of bias by the author of an article upon which the witness  
11 relies. So go ahead.

12 MR. BRODY: Thank you, Your Honor.

13 BY MR. BRODY:

14 Q. Continuing, the Swiss court wrote: "Geneva was indeed a  
15 platform for an unprecedented scientific fraud insofar as Ragnar  
16 Rylander, acting in his capacity as a professor at the  
17 university, took advantage of his influence and reputation, not  
18 hesitating to put science at the service of money, and not  
19 heeding the mission entrusted to this public institution which  
20 consisted, in particular, in disseminating a culture based on  
21 scientific knowledge and in raising awareness of the  
22 responsibility that teachers have toward society."

23 Now, you did not disclose to the Court that one of the  
24 authors that you specifically rely on in your written direct  
25 testimony was found by a Swiss court to have participated in an

1   unprecedented scientific fraud, did you?

2   A.     No, sir.

3   Q.     Now, let's look at one more, and that's U.S.

4   Exhibit 92027, and this is a report of a fact finding commission

5   established by the integrity officer of the faculty of medicine

6   at the University of Geneva, correct? You'll see that on page

7   3, I believe.

8   A.     That appears to be correct, yes.

9   Q.     Now, I want you to go to page 19. We're actually going

10   to focus on page 20, but at the bottom of page 19, we see the

11   heading: "Recommendations," correct?

12   A.     Yes, I see that.

13   Q.     And on page 20, if you take a look at number 2, you see

14   the indication "That professor Rylander's breaches of scientific

15   integrity can be understood only within the framework of the

16   strategy designed and carried out by the tobacco industry to sow

17   doubt about the toxicity of smoke, particularly to nonsmokers."

18           Now, you didn't tell the Court that the faculty of

19   Rylander's university had found that he committed breaches of

20   scientific integrity, did you?

21           MR. MINTON: Objection, Your Honor, he didn't lay the

22   foundation that Mr. Bradley -- or Dr. Bradley had ever even seen

23   this document before, it's an investigative finding.

24           THE COURT: Sustained.

25   BY MR. BRODY:

1 Q. Dr. Bradley, you didn't do any sort of investigation  
2 before relying on Dr. Rylander's -- the article that  
3 Dr. Rylander co-authored to determine whether he had ever been  
4 found to have engaged in any breeches of scientific integrity,  
5 did you?

6 MR. MINTON: Asked and answered.

7 MR. BRODY: It's a different question, Your Honor.

8 THE COURT: Yes. It is a different question, and the  
9 objection's overruled.

10 THE WITNESS: No, I did not.

11 BY MR. BRODY:

12 Q. We'll come back to Rylander's co-authors on that piece,  
13 but first I want to move -- I want to stay on page 101 of your  
14 written direct and talk about Enstrom and Kabat.

15 Can you tell the Court who James Enstrom is?

16 A. He's a researcher.

17 Q. Do you know anything else?

18 THE COURT: Where is this?

19 MR. BRODY: This is page 101 of the written direct, Your  
20 Honor, and it is quoted beginning at page 10, as the Enstrom --  
21 line 10, I'm sorry.

22 THE COURT: I see it.

23 BY MR. BRODY:

24 Q. Do you know anything else about Dr. Enstrom, besides he's  
25 a researcher?



1 A. Well, he's written several articles on the subjects, and  
2 several subjects I've read involving smoking and health.

3 Q. Do you know anything, anything about his background, his  
4 credentials, his education at all, other than he's a researcher?

5 A. Well, I -- at one time I knew more about him, but I can't  
6 recall today.

7 Q. All right. Are you aware, Dr. Bradley, that Dr. Enstrom  
8 began requesting money from the tobacco industry as early as  
9 1975?

10 A. I'm not aware of that, no.

11 Q. Let's take a look at an Exhibit 85789. This is a letter  
12 from Dr. Enstrom to Robert C. Hockett dated June 3rd, 1975, and  
13 Dr. Hockett, on this letter, is identified as the research  
14 director for the Council for Tobacco Research or CTR, correct?

15 A. Correct.

16 Q. You're familiar with CTR, right?

17 A. A little bit. I've -- I haven't studied it but I am  
18 familiar -- somewhat familiar with it, not entirely familiar.

19 Q. Did you know they are a defendant in this lawsuit?

20 A. Yes, I did know that.

21 Q. I want to move forward to the time frame where Enstrom  
22 was beginning the work that led to the publication of the  
23 article that you cite in your written direct testimony and we're  
24 going to hand you a copy of U.S. Exhibit 93167. And this is a  
25 letter from Dr. Enstrom to Max Eisenberg, the director of the

1 Center for Indoor Air Research, dated July 15, 1996, correct?

2 A. Correct.

3 Q. Now, in the letter, we see that Enstrom is providing a  
4 research protocol to Eisenberg, and asking CIAR to fund his  
5 work, right?

6 A. Correct.

7 Q. And if we take a look at the second paragraph, we see  
8 that one of the things Enstrom tells Eisenberg in the letter is:  
9 "For the past three years, I've done consulting and research on  
10 passive smoking for Jeffrey L. Furr of Womble Carlyle on behalf  
11 of R.J. Reynolds and Philip Morris."

12 Now, you know Mr. Furr, correct?

13 A. I do.

14 Q. He was representing the defendants in the Broin trial and  
15 actually examined you when you testified as a witness for the  
16 tobacco defendants in the Broin case, right?

17 A. Yes, that's correct.

18 Q. Now, you didn't tell the Court in your direct examination  
19 that Dr. Enstrom, who you rely on, was a consultant for Womble  
20 Carlyle, did you?

21 A. No, sir.

22 Q. Now, let's see what the ultimate outcome of Enstrom's  
23 request for funding for CIAR was. We're going to take a look at  
24 U.S. Exhibit 25643, and this is a document titled: "CIAR fund  
25 projects, 1989 to 1999." It is in evidence, Your Honor.

1           And Dr. Bradley, I'm going to ask that you turn to the  
2   page with the Bates number 2505442815.

3   A.       Okay, I'm there.

4   Q.       There we see the indication that CIAR funded  
5   Dr. Enstrom's research on CPS-I, or more accurately, research on  
6   a selected subpart of CPS-I in the amount of \$525,000 for a  
7   project duration extending through 2001, correct?

8   A.       No. That's correct.

9   Q.       And that's not something that you told the Court about in  
10   your written direct examination, is it?

11   A.       No, sir.

12   Q.       I want to talk about a couple other researchers that you  
13   rely on, Tweedie and Mengerson, and you quote them provenly on  
14   page 37 of your written direct examination.

15           THE COURT: Before we leave that, did you testify earlier  
16   that a British Medical Journal is a peer-reviewed journal or  
17   rather that it is one that you had respect for.

18           THE WITNESS: Well, it, in fact, is a peer-reviewed  
19   journal, but I said it was a prestigious journal, and I do have a  
20   lot of respect for it.

21           THE COURT: Okay.

22   BY MR. BRODY:

23   Q.       So that subject, Dr. Bradley, before we move on, the  
24   piece that you quoted in your demonstrative from Smith, that was  
25   not a peer-reviewed piece, that was an editorial, correct?

1 A. Right, that was his opinion, expressing his opinion,  
2 sure, yes.

3 Q. And that was not a peer-reviewed article.

4 A. I agree with that. It was his opinion. I thought I made  
5 that clear.

6 Q. Okay. Tweedie and Mengerson, page 37, you haven't told  
7 the Court anything about their connection to the tobacco  
8 industry, have you?

9 A. No, sir.

10 Q. Let's take a look at U.S. Exhibit 93710. This is a  
11 March 10, 1993 letter from Professor Tweedie to Bernard O'Neill  
12 at Shook, Hardy & Bacon in Kansas City, correct?

13 A. Yes,

14 Q. Now, you know Mr. O'Neill, right, because he was one of  
15 the attorneys who supervised your litigation work for the  
16 tobacco industry when you started appearing as a witness for the  
17 industry back in the mid-1990s, correct?

18 A. That's correct.

19 Q. And I suspect he's probably been down to your offices in  
20 State Hills, Alabama to meet with you.

21 A. He has.

22 Q. We're going to come back to that. But for now, let's  
23 take a look at the first two paragraphs of the document, where  
24 Dr. Tweedie indicates "I'm writing concerning extending the  
25 grants for research in the methods of meta-analysis, which

1 Shook, Hardy & Bacon provided in April 1992.

2 You will no doubt recall that one of these was to cover a  
3 two-year period. The second year of this support, \$66,250 is  
4 due to be funded this April, as per your letter of April 21,  
5 1992."

6 Did I read that correctly?

7 A. Yes, sir, you did.

8 Q. And he goes on to refer to two other grants, one for  
9 \$10,000 to cover travel costs and the other to cover his own  
10 salary in the amount of 42,500, right?

11 A. That's correct.

12 Q. And he also refers to what he calls a brief summary of  
13 the accomplishments under these grants. Some of these were  
14 discussed with your colleagues when Professor Mengerson and I  
15 visited in October of last year. That's what he indicates to  
16 Mr. O'Neill, correct?

17 A. That's what he says.

18 Q. Now, Professor Mengerson is from Australia, right?

19 A. I don't recall.

20 Q. You didn't look into his background before you cited his  
21 article in your written direct examination?

22 A. Well, I've looked in the backgrounds of several of these.  
23 I said I just don't recall.

24 Q. You didn't look into his connections to the tobacco  
25 industry?

1 A. No, I did not.

2 Q. From the letter that was marked as 93170, it looks as  
3 though Mengerson -- well, I'll tell you what, it looks as though  
4 Mengerson came all the way from wherever he happens to be from,  
5 I know you said you don't know whether he's from Australia or  
6 not, to meet with the lawyers from Shook Hardy, right?

7 A. He did say he visited in October. He came from wherever  
8 he was, that's correct.

9 Q. We're going to try to sum up this part of the  
10 cross-examination by looking at one more exhibit in particular.  
11 We're going to hand you a copy of U.S. Exhibit 27867.

12 MR. BRODY: Your Honor, is 4:20 okay?

13 THE COURT: Yes.

14 BY MR. BRODY:

15 Q. Now, this is an e-mail from Mark Berlind to Chuck Wall  
16 dated November 12, 2001. I want to ask you if you would have  
17 any reason to doubt me if I told that you Mr. Berlind was an  
18 associate general counsel in corporate affairs with Altria  
19 Corporate Services?

20 A. Well, I don't know. I would have to take your  
21 representation.

22 Q. And would you have any reason to dispute me if I told  
23 that you Mr. Wall is the Senior Vice President and general  
24 counsel of Altria Group, the defendant in this lawsuit?

25 A. Like I say, I don't know one way or the other.

1 Q. The subject line of the e-mail is "ETS," and the first  
2 paragraph indicates: "To set the context, I'll start with  
3 excerpts from major public health groups which form the basis  
4 for stating that there is an overwhelming consensus among such  
5 groups on this issue." And he goes on to list its conclusions  
6 of major public health organizations under nine bullet points,  
7 correct?

8 A. Yes, nine bullet points, that's correct.

9 Q. Now, take a look at the paragraph in the middle of the  
10 page. Mr. Berlind tells Mr. Wall, "No public health  
11 organization has taken a contrary view; however, some individual  
12 scientists have suggested that the science regarding ETS and  
13 lung cancer is not conclusive." Below are the scientists  
14 holding that view along with the dates of their statements that  
15 are cited by R. Carchman in his declaration in the Murphy case  
16 filed February 2000; "Scientists that have, according to S, H &  
17 B" -- that's the initials for Shook, Hardy & Bacon, right?

18 A. Yes, that's correct.

19 Q. -- "received direct or indirect tobacco industry funding  
20 in connection with the article cited or otherwise are denoted in  
21 bold."

22 Are you aware that Dr. Carchman is a former Philip Morris  
23 scientist who's been identified as a witness by Philip Morris in  
24 this case?

25 A. No, I'm not aware of that.

1 Q. All right. Let's look at the first six bullet points.  
2 They are all denoted in bold, correct? Feinstein, Sugita,  
3 Wynder and Hoffman, Armitage, Du and Kabat with the indication  
4 "indirect funding through American Health Foundation," correct?

5 A. That's correct.

6 Q. And the next entry is the Congressional Research Service,  
7 1995, and we see there that Mr. Berlind notes "Funded by U.S.  
8 Congress. Industry may have indirectly impacted on a request  
9 that member made of CRS," correct?

10 A. That's what he says, yes.

11 Q. Now, that 1995 CRS report is something that you cite in  
12 support of opinions that you offer in your written direct  
13 testimony, isn't it?

14 A. That's correct.

15 Q. And you also cite a 1994 CRS report in support of your  
16 conclusions, correct?

17 A. That's correct.

18 Q. The 1994 report was written by Jane Gravelle and Dennis  
19 Zimmerman, right?

20 A. I don't recall off the top of my head.

21 Q. Well, was that something that was important to you in  
22 deciding that you were going to rely on that, who the authors  
23 were?

24 A. No.

25 Q. That wasn't important to you at all?



1 A. That was not important to me.

2 Q. So you can't tell the Court anything about their  
3 scientific backgrounds?

4 A. Not at this time, no.

5 Q. Do you know whether they have scientific backgrounds at  
6 all?

7 A. Like I said, I don't know.

8 Q. Let's look at a copy of JD 004487, if we have that  
9 available. We see the indication there that Ms. Gravelle was a  
10 senior specialist in economic policy, right?

11 A. Correct.

12 Q. And Dennis Zimmerman was a specialist in public finance  
13 in the economics division, correct?

14 A. That's correct.

15 Q. And the report that you rely on is an economic analysis  
16 for cigarette taxes to fund healthcare reform, correct?

17 A. Yes, that was the purpose of the report.

18 Q. And you didn't tell the Court in your written direct  
19 testimony that you were relying on a specialist in economic  
20 policy and a specialist in public finance to support your  
21 opinions on passive exposure and disease, did you?

22 A. Well, they make a statement in their report. I'm not  
23 saying I'm relying on them, per se.

24 Q. Okay. So now you're not relying on the CRS report,

25 A. Well, I am relying on the CRS report that was authored by

1 those two gentlemen, yes.

2 Q. There was no indication on JDEM 020154, one of the  
3 demonstratives that we looked at with Mr. Minton earlier, about  
4 the fact that the report was written by a specialist in economic  
5 policy and a specialist in public finance, right?

6 A. That's correct.

7 Q. And that was similarly not disclosed on JDEM 020157, was  
8 it?

9 A. That's correct.

10 Q. All right. Let's go back, and we can wrap this up for  
11 today, to U.S. Exhibit 27867.

12 And I want to go to the second page of that exhibit. We  
13 see the rest of the list of names with Charloux, Gao, Koo, Ho,  
14 Muscat, Witschi, Koad and Pinkerton all cited in bold, correct?

15 A. Correct.

16 Q. And you cited, Koo as one of Rylander's co-authors in the  
17 Koo and Kabat study, right?

18 A. That's correct.

19 Q. And we saw Kabat bolded on the first page of the  
20 Exhibit 27867, right?

21 A. That's correct.

22 Q. And JCH Ho is also relied on in your written direct  
23 examination as one of Dr. Rylander's co-authors, correct?

24 A. That is correct.

25 Q. Well, Dr. Bradley, it's 4:20.

1           Your Honor, I think this would be a good point to stop for  
2     the day, if we could get an instruction for the witness, that  
3     would be great.

4           THE COURT: Dr. Bradley, you may step down now. Your  
5     instructions for the evening are that you may not discuss  
6     anything relating to your testimony with counsel or with anybody  
7     else. You may not look at any other witness' testimony and you  
8     may not do any homework tonight to prepare for tomorrow's  
9     testimony. And you may step down at this point.

10          In terms of timing, I know that Mr. Brody has about an  
11     hour, Mr. Minton, what -- how much do you think you have on  
12     redirect?

13          MR. MINTON: As of right now, I would say 15 minutes.

14          THE COURT: All right. And then we have Dr. Wecker. Is  
15     it Weicker or Wecker?

16          MR. REDGRAVE: It's Wecker, Your Honor.

17          THE COURT: And who's doing that for the defendants?

18          MR. REDGRAVE: Your Honor, that will be my partner, Mr.  
19     Biersteker.

20          THE COURT: And are you going to use an hour on direct?

21          MR. REDGRAVE: Yes, we are, Your Honor.

22          THE COURT: And who will be cross-examining?

23          MS. EUBANKS: James Gette on behalf of the United States,  
24     and probably three to four hours, Your Honor.

25          THE COURT: I think that's what you all said initially,

1 and therefore probably an hour on redirect without committing  
2 yourself, Mr. Redgrave; is that fair to say, at a minimum?

3 MR. REDGRAVE: Worse yet, without committing  
4 Mr. Biersteker, I would say roughly, but it all depends on the  
5 questions asked.

6 THE COURT: All right. Fine, you may step down.

7 All right. If we can have a reasonably succinct  
8 discussion of scheduling issues, I'll hear from people, I don't  
9 know what they are.

10 I do not think it would be fruitful to discuss issues that  
11 counsel are talking about amongst themselves either tonight or in  
12 the wee hours of the morning when you all talk.

13 So Mr. Frederick, do you want to start?

14 MR. FREDERICK: Yeah, Your Honor. I think Ms. Eubanks  
15 wanted to raise with the Court the defendants' plan to file a  
16 motion relating to the government's list of remedies witnesses  
17 filed on Friday.

18 One of the witnesses included on that list was  
19 Dr. Max Bazerman. And Dr. Bazerman's testimony will support a  
20 new remedy sought by the government which is quote "The need for  
21 court ordered structural changes to defend its businesses,  
22 including, but not limited to, the removal of senior management  
23 and changes in oversight and reporting arrangements," end quote.

24 THE COURT: I certainly saw that.

25 MR. FREDERICK: Now, Your Honor, we recognize that, in

1 Order 886, the Court ordered over our objections, that the  
2 government be permitted to delay its remedies case and also to  
3 develop new evidence on remedies. What we don't think and what  
4 our motion would address is that the remedy that Dr. Bazerman  
5 would testify to, I don't think was fairly within the  
6 contemplation of that order. This is a brand new remedy of, in  
7 its own way, as extreme and over --

8 THE COURT: Why are you arguing it now?

9 MR. FREDERICK: I'm not arguing -- here's my point. We're  
10 going to file our motion today. I believe the government -- and  
11 I'll let Ms. Eubanks speak -- does not want to take the time to  
12 respond to that motion.

13 My suggestion is, we'll file the motion and the Court will  
14 decide whether they have to respond and --

15 THE COURT: Is that right, Ms. Eubanks?

16 MS. EUBANKS: Your Honor, actually, that's partially  
17 correct. The fact is, that there are two motions that the  
18 defense is planning on filing. One is the motion, apparently, to  
19 strike the inclusion of Dr. Bazerman as a witness and the other  
20 is a request for expedited consideration of that motion, which we  
21 don't think is warranted, particularly in light of the language  
22 in Court's Order 886, wherein the Court stated the government is  
23 entitled to an opportunity to present evidence that will meet the  
24 new appellate standard announced by Judge Sentelle.

25 Now, we received an e-mail shortly after 7:00 last night

1 from the defendants, particularly from Mr. Frederick, suggesting  
2 that we meet and confer on this.

3 On 5:00 o'clock on Friday, we filed our witness list that  
4 included the witnesses, which listed Mr. -- Dr. Bazerman on that  
5 list.

6 We just don't think, given that our expert reports are due  
7 one week from today, pursuant to the Court's order, that it would  
8 be a fruitful use of our time to expedite the briefing on  
9 something that we maintain has already been decided by this Court  
10 in prior orders, because defendants placed issues before the  
11 appellate court that weren't before this Court.

12 That's one of the reasons that we're off on this issue, in  
13 terms of other remedies. So, our position is that, in due  
14 course, they can file their motion. The ordinary rules should  
15 apply.

16 By the time we filed our opposition to their motion -- and  
17 it indeed will be an opposition -- they can file their reply.  
18 They will have and the Court will have in mind our expert report,  
19 which will hopefully assist the Court, in terms of deliberating  
20 and making a determination as to the motion, which we think is  
21 unwarranted at this point, but --

22 THE COURT: So basically, this is your oral opposition to  
23 the motion for expedited treatment which hasn't yet been filed.  
24 I think that's right.

25 MS. EUBANKS: I think that's right.

1 THE COURT: I'll get the two motions.

2 MR. FREDERICK: Yes.

3 THE COURT: Today or tomorrow.

4 MR. FREDERICK: As soon as I get back to court (sic).

5 THE COURT: I will look at them and certainly decide the  
6 motion for expedited treatment, one way or the other, right after  
7 I read the motion, and we'll see where we are at that point.

8 MR. FREDERICK: Thank you, Your Honor.

9 THE COURT: Mr. Bernick.

10 MS. EUBANKS: There was another issue that the United  
11 States had, Your Honor, but.

12 THE COURT: Regarding Mr. -- well, to which  
13 Mr. Frederick --

14 MS. EUBANKS: Something that I discussed with  
15 Mr. Frederick at the break.

16 THE COURT: Let's hear that.

17 MS. EUBANKS: It has to do with the submission that the  
18 defendants are making. The prior testimony submissions that are  
19 coming in, those are coming in -- back in August the Court  
20 ordered number 630 that dealt with the objections that the  
21 parties had under Rule 32 and 804(b) dealing with prior  
22 testimony, and those submissions. What the defendants have done,  
23 at least last Monday, with their prior submissions, we maintain  
24 in violation of 630, is despite the Court's ruling with respect  
25 to the United States' objections under Rule 32 and 804(b),

1 they've gone ahead and submitted prior testimony with the 470  
2 highlighting, which then gives rise to an obligation by the  
3 United States to counter designate.

4 The Court having already ruled that certain of these prior  
5 testimonies pursuant to 630 should not come in that route. We  
6 believe that this is wholly improper. Now, how defendants have  
7 done it is, they have attached to these submissions -- or at  
8 least the one that we got last Monday and we believe another one  
9 is on the way today -- with the submission is a statement that's  
10 called "Defendants offer of proof." Were it an offer of proof as  
11 what it was would be fine, but in the submission of 471, in the  
12 designation with the highlight that gives rise to our obligation  
13 when the court has already ruled that this is something that  
14 shouldn't come in.

15 Furthermore the so-called offer of proof states that the  
16 Court should receive this into evidence when the Court has  
17 already decided that it shouldn't be in evidence.

18 What we told defense counsel at the lunch recess today is  
19 that if they are interested in making an offer of proof, and  
20 putting that before the Court, it doesn't, then, become part of  
21 the report which gives rise to an obligation for us to respond to  
22 something that the Court has already decided, then we certainly  
23 doesn't oppose that, but it's creating problems for us, Your  
24 Honor.

25 You asked about a rebuttal case here and what our plans



1    were.  When we planned our case and proceeded, Order 630 was in  
2    place.  We did not anticipate that type of testimony would be  
3    coming in this route, and this changes the landscape under which  
4    we operated under.

5           An offer of proof is one thing, that does not place the  
6    documents or evidence before the Court for consideration, it  
7    merely preserves those rights and objections that a party may  
8    have for appellate purposes.  We've been through this.

9           But to put them in through this process is nothing but  
10   sandbagging and rerunning something that we've already decided  
11   with 630, with the hearing, a transcribed hearing indeed, and an  
12   order that came out of it.

13          So as I said, to address defendants' issues on it, if they  
14   want to collect those testimonies that they believe that 630  
15   addressed and has prohibited their ability to put it before the  
16   Court, an offer of proof is separate.

17          But we shouldn't have to, in seven days that turn up for  
18   us to do counter designations, have to deal with them in that  
19   process.  And we think it's confusing to the Court to put them in  
20   that manner.

21          THE COURT:  Mr. Redgrave.

22          MR. REDGRAVE:  Your Honor, Jonathan Redgrave, for the  
23   record.  I'm not sure that this is as big an issue as it seems to  
24   be from that presentation.  As you're aware, Rule 10318 requires  
25   us to make known the substance of our proffered evidence being

1 excluded for purposes of the record on appeal.

2 As you're also aware, you provided a provision in Order  
3 471, paragraph 11, for the live testimony direct, redirect and  
4 cross and the way in which to deal with that, we don't have a  
5 process, Your Honor, for priors. But we think it's a rather  
6 simple one and it's one that we've been following.

7 THE COURT: Have I ruled -- and again, I haven't looked at  
8 630 in a long time, that's 300 orders ago, everybody, or more  
9 than that.

10 Have I ruled that this testimony is not to come in?

11 MR. REDGRAVE: Your Honor, I'm not exactly sure of the  
12 specific references that Ms. Eubanks is referring to, but the 630  
13 issues I'm aware of are either certain transcripts or certain  
14 witnesses that you've identified through that ruling that are  
15 excluded.

16 However, that was based on where the transcript was taken  
17 in those matters under Rule 32(a) and 804 that we addressed at  
18 that hearing, that in our view, does not suffice for the  
19 Rule 103(a)(2) submission which is really -- here is the  
20 testimony that we believe should be accepted in the record, and  
21 that's our proffer.

22 Your Honor, I think there's a solution here that meets  
23 what the government's complaint is and that's with respect to  
24 these particular transcripts or the few witnesses that I think  
25 might have been excluded in totality, is that we make our proffer

1 through the designations. However, the government need not  
2 respond to that because, then, our proffer is there, they're  
3 going to stand by your ruling on Order 630.

4 It's much like, Your Honor, what you've done with respect  
5 to the written directs, that they've come in and you may have  
6 excluded part of that and, of course, that just stands as the  
7 proffer. It's the same type of procedure, because we need some  
8 process by which we can put it in there. I know that there --

9 THE COURT: The way you get it in is by a proffer and then  
10 they're not required in any way at all to respond.

11 MR. REDGRAVE: Your Honor, that's what we've been doing  
12 and maybe it's the nomenclature of what's included in that, but  
13 with those particular transcripts with those witnesses, we are  
14 submitting to proffering and saying here is the proffer and it  
15 would go to this testimony.

16 Now, what I hear the government saying is that that  
17 confuses things for them because they think they have to now  
18 respond to the designations of the testimony.

19 THE COURT: No, what the government said at least, was  
20 that it's being submitted as prior testimony, which does trigger  
21 an obligation on their part to counter designate accordingly.

22 MR. BERNICK: I'm not sure who the witnesses are either,  
23 but I do know of one witness. And I know that that one witness  
24 presents a situation, I think, that's somewhat different, and  
25 that's Dr. Richmond.

1           Your Honor ruled on Dr. Richmond early days. And I think  
2   this is correct, although I'd have to go back and verify it, I  
3   believe Your Honor's ruling was that he hadn't been listed as a  
4   witness.

5           He was a government witness. The government intended to  
6   call him live, and we had sought to preserve our option of  
7   calling him by -- at the end of our list, by saying we may seek  
8   to call witnesses that the government calls.

9           They subsequently during the course of the trial made the  
10   decision not to call Dr. Richmond. We would now like to put his  
11   testimony in, his prior testimony, sworn testimony, in the  
12   context of one of the prior trials.

13          This situation, I don't mean to debate the merits of this  
14   now, but in this situation, it is not simply a proffer based upon  
15   Your Honor's prior exclusion. We are seeking to actually have  
16   this matter introduced into evidence, and what we indicated in  
17   the footnote was that in addition to submitting the designations,  
18   we would also accompany that submission with our position on why  
19   this should be received into evidence.

20          THE COURT: Had you listed him as a witness?

21          MR. BERNICK: We had not listed him as a witness, but the  
22   government had listed him as a witness and we reserved a right to  
23   call all people they listed as witnesses, for obvious reasons,  
24   which is that they brought him in.

25          We then wanted to have the opportunity -- we anticipated

1 they would. We would, then, want the opportunity to recall him  
2 as part of our case. They subsequently withdrew his name, and,  
3 therefore, we now want to get his prior testimony, rather than to  
4 have him -- rather than to reach out and try to call him live as  
5 part of our case, because we think, frankly, the designations  
6 will be -- I don't think they will be able to dispute the fact  
7 that he gave that testimony. He testified to what we're seeking  
8 to put in on many occasions.

9 But my point is a narrow one, which is that we're not  
10 simply in that case seeking to proffer the testimony. We  
11 actually want that testimony received and are simply going to  
12 really submit a position to Your Honor in connection with that  
13 testimony that explains why we believe at this point in time,  
14 Your Honor should receive that testimony.

15 I don't know if that's the same or different from some of  
16 the other witnesses.

17 MS. EUBANKS: Your Honor, we briefed the issue with  
18 respect to Dr. Richmond and the defendants lost. They had to  
19 count towards their numbers when we put the witness list together  
20 which witnesses were new and which ones are old. This is an old  
21 issue.

22 Mr. Bernick said they didn't identify Dr. Richmond, a  
23 former Surgeon General, on their witness list. That should be  
24 the end of the story. That's their problem.

25 To now say that he should be able to be counter designated

1 or his testimony should be designated when he was on the United  
2 States' witness list and the United States chose not to call him,  
3 that doesn't give rise to an emergency on our part to have to  
4 reconsider motions that in the past have been decided. It's the  
5 same situation.

6 Dr. Richmond should not be allowed to have designated  
7 testimony, as Mr. Bernick says, he was not even a witness on  
8 their list.

9 MR. BERNICK: Your Honor, I really think that goes to the  
10 merits and I believe that's wrong. We're not seeking to say that  
11 this is an emergency. All we're saying is we'll do the  
12 designations and with them provide a statement --

13 THE COURT: Counsel, this is the ruling. When I have  
14 ruled that a witness cannot testify, then the defendants are to  
15 clearly submit a proffer for the record of what their testimony  
16 would be.

17 It is -- there is not to be any lack of clarity or  
18 confusion about the submission being either labeled or perceived  
19 as prior testimony. And I want that to be very clear, it is  
20 simply a proffer, just as the government submitted a proffer  
21 about some witness who was going to testify about something  
22 totally irrelevant to this lawsuit. And the government has never  
23 forgotten that, I know that, Ms. Eubanks. But in any event  
24 that's the way we'll proceed.

25 Now, if there is any disagreement about whether I have

1 ruled -- and I don't think there should be more than about one  
2 disagreement in total, everybody. Then counsel may submit a  
3 two-page explanation of their position when they wish to submit  
4 their -- when they wish to make a submission of prior testimony.

5 And the question will be whether it is to be treated as  
6 prior testimony or simply a proffer. And then I'm going to rule  
7 from the bench, everybody.

8 The opposition, meaning in this case the government, may  
9 have a two-page response if you need it. I mean, this is going  
10 to be pretty straight forward. I'm going look to the order to  
11 which you're both referring and rule at that point.

12 MR. BERNICK: Thank you, Your Honor.

13 MS. EUBANKS: Your Honor, with respect to --

14 THE COURT: And I'm not getting into Dr. Richmond right  
15 now.

16 MR. BERNICK: Right.

17 MS. EUBANKS: Your Honor, finally, with respect to the  
18 exhibit list that accompanied the witness' testimony that comes  
19 forward, the United States has been receiving --

20 THE COURT: Meaning the defendants' order of witnesses?

21 MR. BRODY: Yes, the Monday filings. The exhibit list  
22 that the United States provided indicated whether an exhibit had  
23 previously been submitted or admitted through a prior witness.  
24 We had a discussion about this, here in trial. And we would like  
25 the Court to instruct defendants to do the same as the United

1 States did on those witness lists, and to indicate when there is  
2 a list of exhibits, whether an exhibit has previously been  
3 offered, admitted and through whom.

4 Because that's exactly how the United States provided its  
5 accompanying exhibit lists with its witnesses, rather than just a  
6 list of U.S. Exhibit X Y and Z, we had in parentheses if it had  
7 been proffered, because as you know, the process has been to go  
8 through an exercise after the witness leaves the stand and it's  
9 very helpful to know if something is pending.

10 We received numerous objections from defendants saying  
11 that our proffers were cumulative, so this was the route that we  
12 discussed with the Court and we included a parenthetical so it  
13 was clear to all, whom it was pending with and whether it had  
14 been proffered through a particular witness and that we are  
15 waiting a decision.

16 We ask that the defendants do exactly the same thing on  
17 their exhibit list, so that it would certainly expedite matters  
18 when we receive those to respond.

19 MR. REDGRAVE: Your Honor, very briefly, I think last week  
20 you gave due credit to the fact that there are a lot of people in  
21 the courtroom that make this Court run every day, the support  
22 staff that do a lot of work, night in and night out; day in and  
23 day out.

24 With respect to this particular issue, a number of those  
25 individuals on our side were aware of this and felt that the



1 government's practice had not been as clear-cut and had issues  
2 with respect to lists given to us. I don't want to go there, as  
3 far as any of this, but to advise the Court that for next week's  
4 filings, we will certainly talk to all the support staff to make  
5 sure this is something that can be done in good faith.

6       There are some times we have disagreements with the  
7 plaintiff with what has been submitted and maybe that's the  
8 process of not having the identifiable orders out and that's  
9 again on us. But the government's obviously free to call us any  
10 time with respect to last weeks or this weeks. If there are any  
11 questions as to what's been submitted, we'll talk to all of our  
12 people. I think some of ours are already handed in, I can't make  
13 the assurance that all of them from this week will. I'll  
14 obviously go back tonight -- we obviously have some due here in  
15 about 20 minutes, but by next week, I'll make sure we'll follow  
16 that practice as best we can. And that's where we are, Your  
17 Honor.

18       THE COURT: And let me just remind everybody. I think we  
19 only have four witnesses at this point for whom we don't have  
20 final orders. Dr. Langenfeld, who of course just finished his  
21 testimony. Dr. Whidby, that was a while ago -- seems like a  
22 while ago. John Welch, and Dr. Dixon, who was not a while ago.

23       MS. EUBANKS: And Gulson, Your Honor, Mr. Gulson.

24       THE COURT: And who?

25       MS. EUBANKS: Mr. Gulson.

1 THE COURT: Right.

2 MS. BROOKER: And Your Honor, Dr. Chaloupka.

3 Dr. Chaloupka as well, we're waiting -- the government is waiting  
4 for defendants to get back to us about one exhibit that we want  
5 to move in and we still don't have those orders signed for  
6 Dr. Chaloupka.

7 THE COURT: I see.

8 MS. BROOKER: Hopefully tomorrow. Mr. Redgrave and I will  
9 have it to Your Honor.

10 THE COURT: Oh, indeed for one exhibit, please try to.

11 And hopefully tomorrow Mr. Gulson, but no promises, ever.

12 It has taken much longer than it should have. Yes.

13 MR. BERNICK: I know Your Honor doesn't want to discuss  
14 things that are still in process. I did have the opportunity to  
15 speak with Renee here over the lunch time, about the descriptions  
16 for the remedies witnesses. I haven't heard a response back from  
17 the government.

18 Obviously, if they are going to respond to us, I'm more  
19 than happy to wait, but this is a matter of real urgency to us,  
20 because if Your Honor has glanced at the list, you now know they  
21 have nine different witnesses and I am right now in the process  
22 of trying to make contacts with people who can maybe act as  
23 experts for us, to respond. So, I'm happy to take this up now,  
24 but there's really an urgent need to have this matter addressed  
25 in the court.

1           THE COURT: If this is going to be a conversation, it  
2   should be tonight. If there's not going to be a conversation,  
3   then I assume you're going to file something tomorrow; is that  
4   right?

5           MR. BERNICK: Well, I hoped to --

6           THE COURT: Or we'll deal with it orally.

7           MR. BERNICK: I just hoped we would deal with it orally.  
8   I think it's a fairly straightforward thing. I'm happy to go  
9   through it now. It's not hard to do. Basically I have here,  
10   essentially, one sentence that actually describes the substance  
11   of the testimony that will be offered by each of these nine  
12   people, and one sentence is not the detailed statement that Your  
13   Honor called for. And in some cases --

14          THE COURT: It's not an expert witness report, it was  
15   never intended to be that.

16          MR. BERNICK: Yeah, but -- I recognize that, Your Honor,  
17   but if it were to have any meaning, which I'm assuming it did,  
18   because it should give us the ability to start to look for  
19   people, if we have to call new people, as I know we're going to.

20          It's got to tell us something. For example, Matt Myers  
21   says: "He's going to offer fact testimony concerning defendants'  
22   behavior related to the MSA." Well, that sounds like liability  
23   testimony. I don't know how that relates to remedies, but then  
24   he goes on to say "And remedies and if preventing and restraining  
25   defendants from marketing people under 21." I have no idea what

1 those remedies really are.

2           If you are take Dr. Gruber, he says "under the remedy the  
3 Court would enjoin defendants from engaging in activities that  
4 result in youth smoking." What injunction are we talking about?  
5 What activities, and would impose, quote "Appropriate enforcement  
6 sanctions." Well, that doesn't really tell us anything about  
7 what Dr. Gruber is going to say. If they are, in fact, writing  
8 expert reports that are going to be turned in to us on the  
9 timetable indicated, they've got to have some more definite idea  
10 of what these people are really going to say. I can go call  
11 economists for a long time. I can call people who know about  
12 cessation to respond to Dr. Fiore, but if I, as a practical  
13 matter, call one of these people and I say, "Geez, can you help  
14 us out," and we have to have an expert report in really a matter  
15 of a very short period of time, they're going the say, "Well I  
16 really can't tell unless I know what it is that you want me to  
17 address."

18           I've already had this experience and I can't tell, for  
19 example, with Dr. Fiore, what is the national smoking cessation  
20 program, even in rough outline, that he's going to be talking  
21 about.

22           THE COURT: Mr. Bernick, I understand your position. Let  
23 me ask one question about Dr. Eriksen and see if we can get that  
24 cleared up.

25           Is Dr. Eriksen going to be giving the same testimony as

1 was included in his original expert witness report and no more?

2 MS. EUBANKS: That's probably the case. If it is any  
3 more, Your Honor, obviously we would have the obligation, a week  
4 from today, to provide a report, but it's not intended that it  
5 would be any more.

6 THE COURT: So basically, he will be limited to what he  
7 has already provided an expert report on. I realize there are  
8 eight other witnesses. I looked this over. It's certainly --

9 MS. BROOKER: Your Honor, just to be accurate, Dr. Eriksen  
10 will not be offering any new opinions. It is unclear at this  
11 point whether or not there may be any additional supplemental  
12 materials. They would not be great in number, if any at all, but  
13 his opinions will be the same.

14 MR. BERNICK: That's exactly the issue. Remember what we  
15 talked about last week? If he's going to have new materials, it  
16 doesn't do us much good to know that the opinions are going to be  
17 the same. It does some good.

18 THE COURT: It does.

19 MR. BERNICK: It certainly does some good, but the devil's  
20 in the details in terms of the support. I need to know what the  
21 new evidence is or how there's going to be some kind of  
22 difference, but he's the least controversial of the people.

23 THE COURT: Well, he probably is. Well, no, I'm sure  
24 Surgeon General Carmona is.

25 MR. BERNICK: That's another one that says public issue.

1 Smoking is clearly a public issue. We know that I took his  
2 deposition. I know that he would say it. But that doesn't tell  
3 me what he would say that relates to remedies at all.

4 THE COURT: I think there's a problem with this. Now, I  
5 know that I did not define the specificity in my order. That's  
6 hard to do. It's somehow on a continuum between one sentence and  
7 an expert witness report.

8 MS. EUBANKS: But, Your Honor, some of these are exactly  
9 the same descriptions that defendants have had for months, that  
10 Dr. Carmona --

11 MR. BERNICK: That's the problem.

12 MS. EUBANKS: Dr. Bunn, Dr. Healton. So Mr. Bernick is  
13 complaining about things that have been there for months.

14 MR. BERNICK: That's the problem.

15 THE COURT: But did those people -- certainly the two you  
16 just mentioned didn't provide expert witness reports.

17 MS. EUBANKS: Dr. Carmona is not testifying as an expert  
18 in these proceedings.

19 THE COURT: I understand that. So they haven't had expert  
20 reports of any kind. As to Dr. Carmona, a fact witness, and --

21 MS. EUBANKS: He was deposed for --

22 THE COURT: Just a minute. And Dr. Healton, a fact  
23 witness, and Matt Myers, a fact witness. Is their testimony  
24 going to be limited to what ever was elicited at their  
25 depositions, if they were deposed?

1 MS. EUBANKS: Your Honor, with respect to Matt Myers, he  
2 has not been deposed, so, -- and with respect to Dr. Healton,  
3 defendants spent a great deal of time asking her at that  
4 deposition about her intent to depose. There even was an  
5 exchange of documents upon which she might base some of her  
6 testimony.

7 We don't anticipate that her testimony will go outside of  
8 what was the subject of her deposition. That is not to say that  
9 the defendants asked every question that the United States would  
10 elicit, but certainly the subject matters that were addressed  
11 during Dr. Healton's deposition will be the subject matters that  
12 we anticipate her testifying on before the Court.

13 THE COURT: And what is --  
14 Mr. Bernick.

15 MR. BERNICK: I'm sorry, I'm sorry.

16 THE COURT: What about Surgeon General Carmona?

17 MS. EUBANKS: Similarly, Your Honor, one of the issues  
18 with Surgeon General Carmona is the Court closed the United  
19 States' proof on liability. We had that discussion last week.

20 When Dr. Carmona was listed before, he was a witness that  
21 was appearing at the last phase of the case. But at the same  
22 time it was anticipated that his testimony would be liability as  
23 well as remedies. Given the Court's ruling, we don't think it's  
24 appropriate, since the Court closed that evidence, to offer  
25 liability testimony through Dr. Carmona. We think we would get

1 all kinds of complaints from over here if we did that.

2 THE COURT: Yes, you would.

3 MS. EUBANKS: So we're planning on limiting his testimony  
4 to remedy issues which are fairly, broadly discussing, as we  
5 state here, and very shortly his testimony will not be long, the  
6 public health issue.

7 THE COURT: Were the remedy issues raised during his  
8 deposition?

9 MS. EUBANKS: I would anticipate that the fact that we  
10 discussed his 2004 report, which is a document in evidence here,  
11 and the great national problem that is posed by smoking in that  
12 sense, as an overview, I would think yes.

13 In terms of precise remedies that we would have an expert  
14 testify about, he is only giving, I would say, an overview of the  
15 problem, and that's -- he was certainly deposed for a full day by  
16 defendants, with respect to his testimony.

17 THE COURT: Let me say again, I think that, other than  
18 Dr. Heaton and Dr. Eriksen, there are real problems with these  
19 extremely truncated statements. You all may want to talk  
20 informally tonight.

21 Hopefully the defendants can get more -- a more detailed  
22 response from the government. But if they are not able to, then  
23 before the close of business tomorrow, we'll have to go over this  
24 with some specificity.

25 But I'm -- I'm just alerting everybody now, I don't think,



1 other than the people I referred to, that there is enough detail  
2 in here to form a basis for the defendants to go out and get  
3 their experts.

4 MS. EUBANKS: Well, Your Honor, if I may, the expert  
5 reports are due in six days, and that is quite nearly an  
6 impossible deadline to meet.

7 We received the order on Friday, to get in touch with  
8 these people a week from today to prepare --

9 THE COURT: The order didn't come as any great surprise.  
10 The government got a couple of more days -- a couple of more days  
11 than the defendants wanted and -- oh, I could be wrong, but maybe  
12 five days less than what the government wanted, so we're not  
13 talking about any huge periods of time that shocked anybody.

14 MS. EUBANKS: Well, Your Honor, in terms of notification,  
15 though, my point is this. In one week from today, defendants  
16 will have --

17 THE COURT: I understand that, but they've got to start  
18 working. The government has, in fact, had a substantial period  
19 of time to be working on these reports. Approximately -- didn't  
20 that decision come down in December, is my recollection, or am I  
21 wrong about that?

22 MS. EUBANKS: It was February.

23 THE COURT: I'm sorry, I'm sorry. And of course we  
24 started working on it, but the government's had a good four to  
25 five weeks to start. The defendants have not. And they're

1 certainly entitled to more detail than this. And that's the kind  
2 of informal conversation that should be had this evening.

3 And hopefully they'll be able to get enough before we  
4 proceed tomorrow. If not, I'll go back to it tomorrow and we'll  
5 have to explore what more you can do.

6 MS. EUBANKS: Well, if I could, Your Honor, I would leave  
7 you with this thought about Dr. Bunn. Nothing has changed with  
8 respect to the description, and Dr. Bunn's description is the  
9 same here, insofar as the statements that are contained.

10 And we're willing to discuss this with defense counsel,  
11 Your Honor, but in terms of -- I just want to be completely open  
12 with the Court. The way we work with our experts, quite frankly,  
13 is they tell us what is fair in the way of proffering an opinion.  
14 When the United States goes out to seek its experts for trials,  
15 it does not tell those experts what they are to say, so that is  
16 the --

17 THE COURT: That is a novel approach.

18 MS. EUBANKS: Well, we're in the process of working with  
19 these people.

20 THE COURT: That wasn't meant critically, by the way.

21 MS. EUBANKS: To give an extensive explanation of --

22 THE COURT: Still, the defendants have to have some idea  
23 of subject matter.

24 MS. EUBANKS: Your Honor, these are world famous people,  
25 some of them. Dr. Bazerman, I'm sure they know who he is and

1 they certainly know who Matt Myers is, and they can find all  
2 kinds of statements and testimony before Congress. They know who  
3 these people are. They know who Dr. --

4 THE COURT: It doesn't mean they know what they're going  
5 to advocate at the remedies phase.

6 Everybody, I'm not going to sit here and listen to you all  
7 complain. I'm trying to be very judicial this afternoon.

8 So, we're in recess now until 9:30 tomorrow morning.

9 (Proceedings adjourned at 4:54 p.m.)

10

11 C E R T I F I C A T E

12

13 I, Scott L. Wallace, RDR-CRR, certify that the  
14 foregoing is a correct transcript from the record of proceedings  
in the above-entitled matter.

15 -----  
16 Scott L. Wallace, RDR, CRR  
17 Official Court Reporter

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Scott L. Wallace, RDR, CRR  
Official Court Reporter

## 1 I N D E X

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3 Examinations Page

4

5 DIRECT EXAMINATION OF EDWIN LUTHER BRADLEY, JR., Ph.D. 15421  
6 BY MR. MINTON7 CROSS-EXAMINATION OF EDWIN LUTHER BRADLEY, JR., Ph.D. 15463  
8 BY MR. BRODY

## 8 E X H I B I T S

9 Description Page

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