

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	.	
	.	
Plaintiff,	.	Docket No. CA CA99-02496
	.	
v.	.	
	.	
PHILIP MORRIS USA, et al.,	.	Washington, D.C.
	.	October 7, 2004
	.	
Defendants.	.	
.	

VOLUME 10
MORNING SESSION
TRANSCRIPT OF BENCH TRIAL PROCEEDINGS
BEFORE THE HONORABLE GLADYS KESSLER,
UNITED STATES DISTRICT JUDGE

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

2 (9:30 a.m.)

3 THE COURT: Good morning, everybody, this is, of course,
4 United States of America versus Philip Morris, CA 99-2496. Now,
5 I've been advised that Mr. Sundermeyer has a matter to present
6 initially or preliminarily.

7 MR. SUNDERMEYER: Yes, Your Honor, good morning. Thank
8 you very much.

9 On Monday you asked me to draft a proposed order
10 concerning the proposed direct examinations, the initial proposed
11 direct examinations of Stevens and Northrip. I have made those
12 drafts -- that draft. I e-mailed them to everybody last night,
13 and I passed out hard copies this morning, and I can hand up to
14 the Court the original and a copy.

15 THE COURT: Any objections from anybody? No. Good.

16 MR. SUNDERMEYER: In the course of working through this
17 issue this week, I discovered one more problem, which is the kind
18 of the electronic problem associated with this proposed
19 testimony. Where I found out about it was that I received word
20 from Australia that people were drawing down off of the
21 Department of Justice's Website the -- this proposed direct
22 examination, so I finally figured out how to get on the Website,
23 and the way -- this proposed direct was never corrected and it's
24 posted there, and it's posted there as if it is the direct exam.
25 So I've asked the Department to either please take it off or

1 substitute the other one, and we've not reached agreement about
2 that. And in the course of talking with Ms. Eubanks about that,
3 she pointed out that the proposed direct is probably also on the
4 official Internet, I don't know the technical term, but the
5 Internet access that you get to the pleadings.

6 THE COURT: You mean ECF.

7 MR. SUNDERMEYER: Yes. It's posted there, which if we
8 strike it it comes off, but if there is something I need to do to
9 make that appear I'm prepared to do this.

10 THE COURT: Well, let me read this. If this is written
11 properly, it should come off. I think you have to be more
12 explicit.

13 MR. SUNDERMEYER: Okay.

14 THE COURT: I don't think any of us have had experience
15 with this, and before you give me a next draft of this order, I
16 would talk with Joseph Burgess at the Court, or Greg Hughes, to
17 make sure that you include wording that will catch their
18 attention in order to provide that the originally filed proposed
19 direct examinations are to be withdrawn and I'm sure you wouldn't
20 say from ECF. I'm not sure of the precise language, but that's
21 the language that would trigger the attention of the Clerk's
22 Office.

23 MR. SUNDERMEYER: Okay.

24 THE COURT: In order to get it off ECF.

25 MR. SUNDERMEYER: Okay. Thank you. Now, I would like

1 also to address the problem that the Department seems unwilling
2 to withdraw it from its Website, which seems -- it's the same
3 unfairness. The world gets this draft, but it's reflected there
4 as his direct testimony. It just doesn't seem right.

5 THE COURT: All right. Let me hear from the government,
6 please.

7 MS. EUBANKS: First, Your Honor, to address the ECF issue,
8 unless something has changed, the training that we received from
9 Joe Burgess informed us when we went over to the ECF system that
10 one of the reasons that when you do the filing, and you get up to
11 the last moment to do the filing, there's a point of no return,
12 and that once we file something, that it's there forever. Now, I
13 don't know what difference -- I don't know if that's going to be
14 changed by anything else, but that was the whole point, I
15 thought, in filing this document. Here's what I represent --

16 THE COURT: Well, that may be true, I don't know. I don't
17 know.

18 MS. EUBANKS: Well, this is what I represented to
19 Mr. Sundermeyer. I'm the counsel of record of U.S. V Philip
20 Morris. I am not involved with the Justice Management Division,
21 who is responsible for the Department of Justice's Website. I'm
22 more than willing, and in fact, happy to provide them a copy of
23 this order and the subsequent testimony and to ask if they will
24 put that up on the Website. But, in terms of taking something
25 down from the Website, it is not an easy task, it is not

1 something that can happen overnight, and you have no idea how
2 long it was in the making. If anybody is tracking it, the
3 changes in the Website take months to implement. I'm not
4 involved in that process.

5 As I said, I'm more than happy to put up the examination
6 that was filed that's substituted alongside this order. That way
7 anyone accessing the material will have it, and it seems to me
8 that that's no different from at least my understanding of how
9 the ECF system works. You file something subsequently that
10 addresses another item which indeed, Your Honor, there is a
11 reference number that's included on the sheet that will take
12 anyone who wants to look back to that item.

13 That's what we're willing to do. But as I represented to
14 him, getting an e-mail in the middle of the night in the middle
15 of this trial and expecting me to react with another division and
16 to tell the web master what to do is just not going to happen
17 overnight. I'm happy to provide it to them and to ask that they
18 put up on the Website the corrected testimony alongside of any
19 order that the Court enters, and I think that's more than
20 sufficient.

21 THE COURT: Well, Mr. Sundermeyer, this is what you have
22 to do. Number one, you have to talk to our own people and find
23 out whether it can be withdrawn or not. Ms. Eubanks may be right
24 about that. I went through the training also and I know where
25 that magic point comes where supposedly no return, supposedly, so

1 you have to find that out.

2 Number two, in terms of a department, you check the
3 Website, you determine whether that's sufficient or not. I do
4 understand how that should work, but I also understand that there
5 are responsible entities out in the real world who don't bother
6 to check anything further on a Website or any corrections on a
7 Website, and I hope I don't have to enter an order ordering the
8 web master at Justice to do this, but --

9 MR. SUNDERMEYER: And it would seem to me we might be able
10 to streamline this. If Ms. Eubanks makes this request, first
11 request that she just include in the request what we would like
12 you to do is substitute, put the order on, this order once we get
13 it straight, put the new testimony on and please take the old one
14 off. If that's included in the initial request, that may well
15 speed the process to be fair to Mr. Northrip.

16 THE COURT: It may, bureaucracies, it may not. One gets
17 hardened after a while.

18 MR. SUNDERMEYER: I understand that, but just in terms of
19 what -- and by the way, you should know, that this -- where this
20 comes on the Website is on the Civil Division, there's a heading
21 there, Civil Division and there's a list of things for the Civil
22 Division, and you come down to the tobacco case and, you know --
23 so it would seem to me that if the Court might ask counsel to
24 please include in the request that they actually take it off,
25 then we have a higher likelihood of taking it off.

1 THE COURT: All right. Ms. Eubanks will do that. This
2 order, though, I'm not going to sign, and you're going to look
3 into this further.

4 MR. SUNDERMEYER: I will go to Mr. Burgess right now.
5 Thank you very much, Your Honor.

6 THE COURT: All right, Dr. Farone, after that
7 unenlightening discussion.

8 CONTINUED CROSS-EXAMINATION OF WILLIAM A. FARONE, Ph.D.

9 BY MR. WEBB:

10 Q. Good morning, Dr. Farone.

11 A. Good morning, Mr. Webb.

12 Q. Is my mic on? I want to pick up where we left off at the
13 end of the day yesterday as we took our evening recess. Jamey,
14 can I have tab 458. I'm going to show you where we were
15 yesterday as far as your testimony on page 134 of -- yesterday
16 when we left off I was asking you questions about your testimony
17 that appears on line 6 and 7 and 8 there that it's your
18 testimony that defendants had an agreement not to compete
19 against each other in the marketing of cigarettes by claiming
20 that their products were potentially any safer than other
21 cigarettes. As far as that agreement is concerned that you've
22 testified to as an expert witness in this case, do you at least
23 agree, as an expert witness in the case as you reviewed
24 materials as an expert witness, you come across some contrary
25 information because -- am I right, you come across information

1 that would indicate that there have been two reasons why the
2 tobacco companies have not tried to advertise health claims.
3 One was the FTC cigarette advertising guidelines that I showed
4 you yesterday that I'm not going to go back into, but number
5 two, you've seen evidence that the tobacco companies were
6 concerned over the years that if they advertised health claims
7 that that would invite the FDA to come in and regulate cigarette
8 products; is that fair to say?

9 A. I've seen information to that -- obviously to that --
10 that they were concerned about FDA coming in, but I don't recall
11 seeing it in connection with any of the documents that talk
12 about the gentleman's agreement. I think they're two separate
13 things.

14 Q. Well, let me sort it out. You've seen documents in all
15 the tens of thousand of documents that you've reviewed, you've
16 seen documents where tobacco companies appeared to be concerned
17 that if they went out and tried to advertise health claims, that
18 that might invite the FDA to come in and regulate the tobacco
19 industry; is that correct?

20 A. I've seen documents about -- concerns about FDA. I don't
21 know about associating with health claims. I think it was more
22 about nicotine and other things, but yes, you know, that's a
23 conclusion that one can draw. There was great concern about FDA
24 regulation.

25 Q. Okay. And in fact, when you were at Philip Morris, as

1 you had day-to-day conversations with people at Philip Morris,
2 do you remember being in discussions with people where they
3 talked about this issue, that if we try to, you know, develop a
4 product, do all the R & D, invest all the money, that if we go
5 out and try to advertise it with health claims, we're going to
6 have the FDA coming in here and regulating this industry. Did
7 you participate in conversations along that line?

8 A. Yes. Yes, I did.

9 Q. Now, in fact, if we want to know what actually happens in
10 real life, in real life, in the real world, when a tobacco
11 company actually goes out and tries to advertise health claims,
12 all we have to do is look at the Premier product; is that fair
13 to say, Doctor?

14 A. Well, no, that's not fair to say. I mean that's one
15 thing you can look at, but I wouldn't say all you have to look
16 at.

17 Q. Well, let's look at that.

18 A. Okay.

19 Q. You're familiar with the Premier product; is that
20 correct?

21 A. Yes.

22 Q. And it's a product that was engineered, developed, and
23 eventually put into the test market by R.J. Reynolds; is that
24 correct?

25 A. That is correct. Excuse me.

1 Q. Are you all right, do you want some water? Do you have
2 water?

3 A. Yes, I do. Sorry.

4 Q. As far as just to acclimate the Court on time frame,
5 based on the documents that you've seen, you've seen documents
6 to indicate to you that during the 1980s, R.J. Reynolds spent
7 hundreds of millions of dollars in research and developing a
8 product called Premier; is that fair to say?

9 A. Well, documents about their development in the mid-'80s,
10 I'm not sure that I've seen documents about spending hundred of
11 millions of dollars. But I don't quarrel with that.

12 Q. Okay. And I'm not going to go into the details of the
13 technology, but you're aware that that's one of these -- Premier
14 is one of the products that was heating tobacco and not burning
15 it; is that correct?

16 A. That is correct.

17 Q. And by heating the tobacco and not burning it, you've
18 seen test results indicating to you that Reynolds was successful
19 in achieving major reductions in some of the components of
20 cigarette smoke that you and others believed is harmful; is that
21 fair to say?

22 A. Well, not quite fair. I mean they were reduced over,
23 say, a Winston or a Marlboro, but they weren't reduced over,
24 say, Cambridge or Now, or other cigarettes that they had
25 previously developed. So it depends on what you're comparing it

1 to when you say that this was a, you know, significant
2 advancement, but they are lower than their major selling
3 products, if that's the point.

4 Q. They are -- sorry, lower than what?

5 A. The major selling products, Marlboro, Winston, in fact,
6 those.

7 Q. In fact you testified in the past you think it was a step
8 in the right direction for a safer product; is that correct?

9 A. Sure, if you take the higher ones off the market and
10 replace it with these, that's a step in the right direction.

11 Q. Okay. And you've actually -- what happened here, so the
12 Court understands, is that Reynolds actually put that product
13 through this battery of tests we talked about yesterday,
14 including chemical tests, toxicological tests, biological tests
15 and even some tests in humans; is that correct?

16 A. That is correct.

17 Q. And Reynolds published a 700 page monograph that it
18 distributed to the scientific world, to government, to the
19 public health community; is that correct?

20 A. That is correct, I have it on my reliance list, and it's
21 something that I say should be done for every product -- I mean
22 you know, it seems like logical to do it.

23 Q. Let me hand you that exhibit.

24 MR. WEBB: Grace, could I get joint defense Exhibit 62305.
25 I have it in my hand.

1 BY MR. WEBB:

2 Q. It's a monograph and you've seen it before; is that
3 correct?

4 A. That is correct.

5 Q. Okay. And it sets forth the test results that Reynolds
6 achieved from a battery of tests that you think Reynolds did a
7 real good job; is that fair to say?

8 A. Yes. As I indicated, I would like to see data like this
9 on all cigarettes.

10 MR. WEBB: And could I have, as far as who Reynolds
11 distributed this to, could I have up on the screen joint defense
12 Exhibit JD 54094, please to show us who Reynolds actually
13 distributed this to, and -- yeah, call that out. Thanks, Jamey.
14 Can you show -- is there a date at the top of the page?

15 BY MR. WEBB:

16 Q. In 1988, in the fall of 1988, September 29th, Reynolds
17 distributes this monograph showing all the testing it did to
18 Congress, the FDA, the FTC, people in the scientific world and
19 the public health community; is that fair to say?

20 A. Well, I mean, I can see the document says that, so I can
21 agree with you that that's what the document says.

22 Q. Okay. Was it your -- let me just, based on all the work
23 that you've done in this case as an expert, have you -- did you
24 see indications that Reynolds actually went out and had
25 meetings, for example, with the FDA to try to tell the FDA this

1 is a better product, that is a safer product?

2 A. I've seen -- yes, I've seen records indicating that
3 meetings were held and that information was provided to
4 different people, yes.

5 Q. And by the way, you testified in the past that's what you
6 think cigarette companies should do, if they develop a safer
7 product, they ought to go in and meet with the government
8 agencies, give the government agencies the substantiation before
9 they start making health claims, is that what you want to
10 happen?

11 A. Yes, I think they should do for all their products in my
12 opinion.

13 Q. And Reynolds also went and met with the FTC in connection
14 with this product; is that correct?

15 A. I don't recall. I just don't know.

16 Q. And I take it from looking at all the evidence that
17 you've looked at in this case, you're aware that in late 1988
18 Reynolds launched this product into the marketplace as a
19 commercial cigarette in test markets; is that correct?

20 A. That is correct.

21 Q. And what happened is that Reynolds decided to market and
22 advertise the product by communicating to the American public
23 that this product substantially reduced constituents of
24 cigarette smoke that might be harmful; is that correct?

25 A. Well, I've seen advertisements to that -- I don't know

1 what their internal division was, but that's what happened.

2 Q. Okay.

3 MR. WEBB: Could I have JDEM 060083 on the screen.

4 BY MR. WEBB:

5 Q. I put up on the screen one of the Premier adds that was
6 referred to I think in opening statement. You've seen ads like
7 this when Reynolds tried to promote the product when it put it
8 into the market; is that correct?

9 A. Yes.

10 Q. And Reynolds starts out, the heading. "Of course it's
11 different, it's cleaner." And if we go down, I think it's the
12 third paragraph, look at the third paragraph, if I could have
13 that culled out, "by heating tobacco". You can't cull it out
14 because -- I think it says -- if you look at the third paragraph
15 it says: "By heating tobacco, Premier changes the very
16 composition of cigarette smoke, substantially reducing many of
17 the controversial compounds found in the smoke of tobacco
18 burning cigarettes, and those that remain include carbon
19 monoxide, but it's at a level no greater than in the best
20 selling lights."

21 Now, that statement by Reynolds communicating to the
22 American public what its test showed is what you told the Court
23 yesterday you wanted the tobacco companies to do; is that
24 correct?

25 A. Well, yes, that's part of it. That doesn't compare to

1 what and it doesn't tell -- I don't see any mention in here of
2 Winston, Marlboro. When you start talking about "at a level no
3 greater than lights" and we really don't know what "lights" are,
4 it's in the right direction, but it's still fuzzy, very fuzzy.

5 Q. So, I think in fact, you've testified in the past you
6 think Reynolds should have been more explicit in its health
7 claims in this ad; is that correct?

8 A. Not in health claims, in providing information about the
9 potential for any reduced risk. You see, there's a difference
10 between making a health claim and making a claim which -- or
11 stating facts that say this is what I measured in the cigarette
12 product.

13 Q. Well, let me ask you this question, Doctor: As far as
14 the internal decision-making process inside Reynolds as to how
15 far they could actually go in advertising this product without
16 bringing the wrath of the federal government down on their head,
17 you're obviously not familiar with whatever decision making
18 occurred; is that fair to say?

19 A. I already said that, yes.

20 Q. But, I take it you did work inside a tobacco company for
21 eight years; is that correct?

22 A. Yes.

23 Q. And you do realize that tobacco company executives on a
24 day-to-day basis, they do have to make real world decisions
25 based on taking into consideration things like if we do this,

1 will the FDA try to regulate us. Those are fair things for a
2 tobacco company to consider, do you agree?

3 A. Well actually I was hired under the anticipation that
4 that would happen.

5 Q. Okay. Well, let's tell the Court what happened after
6 Reynolds ran that ad, because you're aware, are you not, Doctor,
7 that when Reynolds ran that ad, the entire federal government
8 health community, as well as the private health community, came
9 down on top of Reynold's head and demanded FDA regulation of
10 cigarettes; is that correct?

11 MR. GOLDFARB: Objection, Your Honor, to the
12 characterization of the --

13 THE COURT: Well, the witness can disagree. Objection's
14 overruled.

15 THE WITNESS: Yeah, I do disagree.

16 BY MR. WEBB:

17 Q. Let's go through what happened. The first person that
18 demanded FDA regulation was none other than the Surgeon General
19 of the United States, C. Everett Koop; is that correct?

20 A. Well, I think he demanded regulation regardless of this
21 ad. I think there's been an interest in regulation -- I mean,
22 in fact, I actually thought when I went to work for Philip
23 Morris that regulation was going to come within five to ten
24 years. The company was not adverse to that at the time that I
25 went there.

1 Q. Okay. You don't recall whether Dr. Koop's demand for FDA
2 regulation had anything to do with Reynolds running these ads?

3 A. Oh, I think -- no, I recall that he made some comments on
4 the basis of this, and, you know, if you think about it and go
5 back to what I said, this is not any less material being
6 delivered in this cigarette than in a Cambridge or a Now or
7 other cigarettes that are out there, so why -- I mean it's just
8 totally inconsistent. Even though it's a step in the right
9 direction, we've reduced it over Winston, it's inconsistent to
10 point to this product and say there's something special here
11 when other cigarettes already on the market do better. I agree
12 with Mr. Koop.

13 Q. Let's see with what you agree with as far as what these
14 tobacco companies can and can't do.

15 MR. WEBB: Can I have joint defense Exhibit 001592 called
16 up, please.

17 BY MR. WEBB:

18 Q. Have you seen this before in litigation? This is
19 Dr. Koop's letter in September of 1988 to the FDA; is that
20 correct, sir?

21 A. Well, I don't know, I don't recall this --

22 Q. You don't recall seeing this before?

23 A. No, I don't.

24 Q. Okay. Let's go through it together. Do you see who it's
25 addressed to?

1 A. Yes.

2 Q. It's addressed to the commissioner of the FDA?

3 A. Yes.

4 Q. And this first sentence says: "I commend your action to
5 inform the R.J. Reynolds Tobacco Company that if it decides to
6 market its new product, Premier, it does so at it's own risk. I
7 also support the careful process that the Food and Drug
8 Administration, FDA, has initiated to review the product and
9 associated issues." And if we go down to this paragraph I've
10 highlighted at the bottom --

11 THE COURT: Excuse me, what's the objection?

12 MR. GOLDFARB: The objection is that he's not proffered as
13 an expert on an FDA --

14 THE COURT: Mr. Goldfarb, you have to use a microphone.

15 MR. GOLDFARB: I'm sorry, I thought mine was on. Is it
16 on? I apologize, Your Honor.

17 The objection is that Dr. Farone is not offered as an
18 expert in FDA regulation, and its requirements.

19 THE COURT: He's is not testifying as an expert now. He's
20 made very clear what his position is in terms of what he believes
21 the company should have done in terms of adequately informing the
22 public. This is factual testimony at this point as to what
23 happened when one company made an effort, whether adequate or
24 not, to try and inform the public, but it's perfectly proper
25 cross. Go ahead, please.

1 MR. GOLDFARB: Your Honor, may I respond for one moment?
2 Mr. Webb has framed all his questions in terms of Dr. Farone's
3 expertise and the documents that he's reviewed as an expert in
4 litigation.

5 THE COURT: I see. Well, certainly Dr. Farone has
6 indicated he hasn't seen this document so he can't be testifying
7 on the basis of his expertise about this document. But certainly
8 he's reviewed many many other documents, and has based much of
9 his testimony on his review, extensive review, of so many of
10 those other documents. No question, if he hasn't seen one
11 before, as he pointed out in this document, he's testifying a
12 fresh on this one, and that's clear to me, and will be clear when
13 I review the transcript.

14 BY MR. WEBB:

15 Q. Now, Doctor, if we go down to the paragraph at the bottom
16 of the page as far as whether Dr. Koop was responding to
17 Reynolds effort to market this as a safer product it says,
18 product health claims are implicit. In its public statements
19 and marketing plans, RJR states regarding the product: "A
20 majority of the compounds produced by burning tobacco are
21 eliminated or greatly reduced, including most compounds that are
22 often associated with the smoking and health controversy. To
23 me, this suggests a health claim that the product is safe or
24 safer than conventional products, which could result in reduced
25 quitting by smokers, increasing relapse by ex-smokers and

1 increased initiation by adolescents."

2 Could we go to the next page of the document?

3 And quote, "Dr. Koop concludes the letter by saying to the
4 FDA, 'In conclusion, I consider this product to be a nicotine
5 delivery system for which health claims are being made and urge
6 you to exercise jurisdiction over it as you have over other novel
7 nicotine delivery systems. I do not believe that marketing this
8 product is in the best interest of the public health.'"

9 Now, you were at least generally aware, were you not, if
10 you haven't seen this letter, that Dr. Koop reacted to Reynolds
11 effort at advertising by asking for FDA regulation?

12 A. I was generally aware of that, yes.

13 Q. And as far as that product that Dr. Koop wanted to
14 regulate, as I understand your past testimony, you actually
15 believed Premier was a reasonable cigarette design for RJR to
16 market to consumers; is that correct?

17 A. I think I've indicated it's lower than Winston and so if
18 you -- if you're RJR and you replace Winston with something that
19 has less chemical dosage in it, I think that's a very reasonable
20 thing to do.

21 Q. Have you testified in the past that in your opinion the
22 development and marketing of Premier should have been encouraged
23 in the interest of public health?

24 A. Yes, along the lines I just indicated. If you replace
25 Winston with this product, you will be reducing the dosage of

1 chemicals being given to people down that dose response curve.

2 Q. And so if you believe, as you've testified, that you
3 believe that the development and marketing of Premier should
4 have been encouraged in the interest of public health, then when
5 Dr. Koop tells the FDA, "I do not believe that marketing this
6 product is in the best interest of public health", I guess you
7 respectfully disagree with Dr. Koop on that point; is that fair
8 to say?

9 A. Not only is that fair to say, but this whole discussion
10 continues to this day, as you know. I mean, Dr. Kozlowski,
11 there are people who indicate that say we should replace them
12 with medicinal nicotine, there are people who say we should
13 greatly increase the nicotine to tar ratios to get the tar --
14 the poisonous chemicals, down to the lowest levels. As a
15 chemist I want to do everything to get those chemical levels
16 down. There are other people who say that the only way to solve
17 this problem is to get everybody to quit and maybe that will be
18 the ultimate destination. So this is nothing -- this is nothing
19 new here, either before or as of today, there are people who
20 have different opinions on the best approach to this public
21 health problem.

22 Q. All right. But let me ask you this: As a scientist at
23 Philip Morris or as an expert now, that as reasonable people
24 could disagree on what they can and cannot do in cigarette
25 advertising today; is that fair to say?

1 A. Well, reasonable people can always disagree, but we're
2 talking here about solving a public health problem not
3 advertising. I'm not involved in advertising. I mean --

4 THE COURT: And I -- even though I didn't hear it, I am
5 going to sustain an objection to that question that was asked.
6 That really did call for expertise on Dr. Farone's part as to
7 what is permissible and not permissible under current -- under
8 the current regulatory environment, and I don't think he's an
9 expert in that field.

10 MR. WEBB: Okay.

11 BY MR. WEBB:

12 Q. Let me just complete the story, and I won't go into a lot
13 of detail. After Dr. Koop sent that letter, other public health
14 organizations, like the American Heart Association, the American
15 Lung Association, the American Cancer Society, they all
16 petitioned the FDA to regulate this product; is that correct?

17 A. That's one of many times I think that's happened, yes.

18 Q. And you are aware that then the fact that the public
19 health community became upset about this product, there was a
20 lot of negative publicity about the product in the public press;
21 is that correct?

22 A. Negative -- the most of the negative publicity that I'm
23 aware of was not generated by the public health community, but
24 there was some, I do recall some, yes.

25 Q. Okay. And --

1 THE COURT: Was the negative publicity attacking the
2 accuracy of the claims or was it about other matters such as this
3 very controversial issue of FDA jurisdiction?

4 THE WITNESS: I saw some of both. I've seen both kind of
5 controversy that were stirred up. I mean, the whole idea of
6 having a product like this but, you know, leaving the other
7 products on the market, you know, what's the justification if
8 you've got something that's better, how do you then -- or if
9 it's, you know, less of a problem, how do you justify leaving the
10 other product there? That was one of the major issues that I was
11 aware of at that time.

12 BY MR. WEBB:

13 Q. Now, Doctor, you testified in the past that as you look
14 at Premier and read the test results, Premier comes close to
15 your idea of an ideal safer cigarette?

16 A. Well, it's a step down there. I mean, you're still a
17 long way away, as has been pointed out several times in my
18 testimony and in other articles. The chemicals here are still
19 too high, but you have a mechanism now, by heating rather than
20 burning, to further reduce -- in other words, if you take some
21 of the other technologies and you add them to this product, you
22 can come out with extremely low levels on the order of the ones
23 that are in the zero tar delivery cigarettes but still have some
24 flavor, still have some nicotine, still have something that
25 might encourage an addicted smoker to use that product rather

1 than a more hazardous one.

2 Q. Well, am I correct, sir, on the issue of whether these
3 tobacco companies are actually trying to develop safer products,
4 you believe that Reynolds' effort at spending the money to
5 develop the product, to market the product and to put it into
6 the marketplace, you viewed that as a good thing; is that
7 correct?

8 A. That is correct.

9 Q. Now, as far as the issue of these tobacco companies
10 developing safer cigarette products that you discussed
11 extensively in your direct examination, to put things into
12 perspective, let's tell the Court as far as the federal
13 government is concerned, there was a time that the federal
14 government actually had a structured program to support and work
15 with the tobacco companies in the development of safer cigarette
16 products; is that correct, sir?

17 MR. GOLDFARB: Again, Your Honor, objection. This is
18 beyond the scope of Dr. Farone's direct examination.

19 MR. WEBB: Your Honor, Dr. Farone's direct examination
20 tried to set this up as if -- the government's got this
21 allegation in their lawsuit, one of their huge pillars of fraud
22 was that we failed to develop cigarette products and it was a
23 fraud, and if he put their expert on the stand, their expert to
24 prove that major pillar of fraud in their case, as they said in
25 their opening statement, and I think I have a right to explore

1 this on cross-examination and that --

2 THE COURT: The objection's overruled. The clear opinions
3 stated by Dr. Farone in his testimony, and they were very
4 straightforward, are very strong opinions and cover a lot of
5 territory. If he isn't familiar with issues that Mr. Webb is
6 raising, well, fine, he'll tell us so in no uncertain terms, but
7 if he is familiar with them, they may well relate to the strength
8 or weakness of his opinions that he has given.

9 Go ahead, Mr. Webb.

10 BY MR. WEBB:

11 Q. So I'll repeat that question. Sir, am I correct, to put
12 things in perspective, you were aware that there was a time in
13 the past that the federal government actually had structured a
14 program to support and work with the tobacco companies in the
15 development of safer cigarette products; is that correct?

16 A. That is correct.

17 Q. And you are aware that after that safer cigarette project
18 was under way for about ten years while you were at Philip
19 Morris, in fact, the federal government unexpectedly changed its
20 policy and cancelled the program; is that correct?

21 A. Well, there's actually more than one program. I'm sorry.
22 So, I mean, there's the USDA program with Dr. T.C. Tso, and then
23 there is the Tobacco Working Group. Which of the two are we
24 talking about?

25 Q. I was talking about the Tobacco Working Group. But,

1 before I do that, what is this US -- the first program you
2 talked about is called what?

3 A. Well, it was a program to reduce, try to reduce materials
4 in tobacco. Philip Morris participated in it. There's patents
5 that were developed -- remember, we talked about the nitrogen
6 compounds being bad things, and Philip Morris had a program.
7 The person who's name appears on the patent is Dr. Gordon
8 Bokelman, B-O-K-E-L-M-A-N, developed patented technology that
9 reduced nitrogenous materials -- removed protein from tobacco,
10 because most of the nitrogen is in protein, and that program was
11 a program that was undergoing while I was at Philip Morris.

12 Q. Well let me talk about TWG for a minute.

13 A. Okay.

14 Q. So the Court knows what we're talking about, because you
15 and I have lived through this and the Court hasn't. The Tobacco
16 Working Group -- well let me ask, when you joined Philip Morris
17 in 1976, right, you joined Philip Morris in 1976, at that time
18 the Tobacco Working Group was in existence; is that correct?

19 A. It's right toward the end. So it's around that time,
20 yes. I believe it was in existence when I joined. I haven't
21 gone back and parceled those dates.

22 Q. And it existed for about ten years; is that correct?

23 A. Yes.

24 Q. And the Tobacco Working Group was a group that contained
25 the public health community, the scientific community, the

1 tobacco companies and government, all joined together working
2 together as part of a government sponsored organization to
3 develop a safer cigarette; is that correct?

4 A. Yes.

5 Q. And the Tobacco Working Group operated under the
6 direction of the National Cancer Institute; is that correct?

7 A. Under the direction or coordination. I don't know about
8 it's being "directed" by. It was coordinated by.

9 Q. Fair enough. I didn't mean to overstate it. I'll use
10 your term, it was being coordinated by the National Cancer
11 Institute; is that correct?

12 A. That's my understanding.

13 Q. And am I right, based on your past testimony, you
14 believed that when you joined Philip Morris, you thought that
15 the Tobacco Working Group was a good concept for the government
16 and the tobacco companies to be working together to try to find
17 a way to accomplish the common goal of a less hazardous
18 cigarette; is that correct?

19 A. Yes.

20 Q. And the tobacco -- in fact, when you -- you were
21 generally aware that there were some very prominent public
22 health scientists that had affiliated themselves with the
23 Tobacco Working Group to work with the tobacco companies to
24 develop safer cigarette products; is that correct?

25 A. That is correct.

1 Q. For example, Dr. Wynder, the famous Dr. Wynder that we
2 hear so much about, he was a member of the Tobacco Working
3 Group; is that correct?

4 A. Yes.

5 Q. And Dr. Dietrich Hoffman, probably the next most famous
6 researcher in the field, he was a member of that group; is that
7 correct?

8 A. Yes.

9 Q. And Jesse Steinfeld, who had been a former Surgeon
10 General of the United States, was a member of the Tobacco
11 Working Group; is that correct?

12 A. Yes.

13 Q. Now, what actually happened, and you became generally
14 aware of it while you were at Philip Morris, is that when the
15 Tobacco Working Group functioned for that ten years, they
16 actually did come up with a number of different cigarette design
17 options in an effort to develop a less hazardous cigarette; is
18 that correct?

19 A. Well, there were different designs discussed, yes, if
20 that's what you -- they did use the data that was collected up
21 to the point where it was ended to suggest improved designs,
22 yes.

23 Q. We'll talk about -- let's talk about the end of it. Am I
24 correct, you're generally aware that in 1978, after you had been
25 at Philip Morris for a couple of years, you heard and found out

1 that Dr. Gori of the National Cancer Institute had published
2 various recommendations or guidelines as to what could be
3 considered a medically acceptable cigarette; is that correct?

4 A. Well, okay. Yes, he published guidelines on how to
5 improve the -- or reduce the toxicity in his opinion, yes.

6 Q. Okay. And Dr. Gori's guidelines or recommendations on
7 how to reduce toxicity in cigarettes caused an uproar in the
8 public health community; is that correct?

9 A. Well, there were people who disagreed with it, if that's
10 what you mean, yes.

11 Q. Well, let's find out who disagreed with it. At that
12 time, and throughout the Tobacco Working Group, the Tobacco
13 Working Group being coordinated by the National Cancer Institute
14 was actually being funded by the Department of Health,
15 Education, and Welfare; is that correct?

16 A. That's my understanding.

17 Q. And at that time Joseph Califano was the secretary of HEW
18 at the time; was that correct?

19 A. Yes.

20 Q. And in 1978, you found out HEW and Joe Califano
21 unexpectedly and suddenly shut down the Tobacco Working Group;
22 is that correct?

23 A. It was shut down, yes, in that year.

24 Q. Have you testified in the past that you believed that to
25 be unexpected and suddenly shut down?

1 A. Oh, yes, I didn't disagree with you.

2 Q. I'm sorry. That's what happened, that's what you
3 understood happened?

4 A. Yes.

5 Q. It was unexpected to be shut down?

6 A. Well, I don't think -- I didn't expect it. People
7 there -- people at -- remember, when I'm hired in 1976, we --
8 the understanding that I had when I was hired was that within
9 five to ten years we would agree to regulation or be regulated
10 or whatever. That's the basis of Philip Morris seeking my
11 expertise in their company. So, it's unexpected to me that that
12 would happen because I would have expected that it would move
13 ahead toward regulation or agreement on regulation.

14 Q. The entire organization's operation were disbanded
15 immediately; is that correct?

16 A. That's my understanding.

17 Q. In fact, there were laboratory experiments still ongoing
18 that were cancelled in the middle of experiments; is that
19 correct?

20 A. Yes.

21 Q. And at the same time, Joseph Califano gave a speech, a
22 public speech, in which he declared war on tobacco, and you
23 remember that, don't you?

24 A. I remember the speech, yes.

25 Q. Do you remember the speech declaring a war on tobacco?

1 A. I remember the speech to which you're referring, yes.

2 Q. Okay. And that was the same time that he shut -- that
3 they shut down the Tobacco Working Group; is that correct?

4 A. I think it was after he shut it down, right. He shut it
5 down and then that was the explanation for the reasons. That's
6 correct.

7 Q. Okay. It was in the same time period is what I'm --

8 A. Oh, yes.

9 Q. Now, in fact, at that time some of the experiments --
10 some of the laboratory experiments that were going on at that
11 time were actually animal inhalation experiments that were in
12 process; is that correct?

13 A. That's my recollection.

14 Q. And when this happened at the time it happened, you've
15 testified you felt it was the wrong thing to do?

16 A. That's right. I think those experiments could have been
17 useful in giving us more information about specific toxic
18 chemicals in cigarette smoke.

19 Q. In fact --

20 A. In their relative order.

21 Q. In fact, it's your belief the truth was that the Tobacco
22 Working Group was composed of good, smart, and experienced
23 people who were starting to make some progress regarding less
24 hazardous cigarettes; is that correct?

25 A. For the most part, yes.

1 Q. In fact, I believe from past testimony you remembered
2 that when it was shut down Dr. Hoffman, the famous smoke
3 researcher, he was then a member of TWG, he publicly stated that
4 he felt it was a mistake to shut it down and he thought it was
5 shut down because of politics and not science. Do you recall
6 that?

7 A. I know he was against -- I don't recall exactly his
8 statement, but I know that he was in favor of keeping it going.

9 Q. Now, since that happened, in 19 -- since that happened in
10 1978, the federal government's policy has been to not work with
11 the tobacco companies in a cooperative effort to develop less
12 hazardous cigarettes; is that correct?

13 MR. GOLDFARB: Objection, Your Honor, again, this is
14 beyond the scope of Dr. Farone's -- both his fact and his expert
15 testimony and his direct examination.

16 THE COURT: Not necessarily beyond the scope of his
17 factual testimony. Again, he'll tell us if he can answer or not.

18 THE WITNESS: Well, that's why I was confused before,
19 because the program to which I was alluding before took place
20 after 19 -- took place after TWG.

21 BY MR. WEBB:

22 Q. So let me come back to that. The program that you're --
23 that program -- when did that program start?

24 A. It was in late '70s, and it was running through the '80s
25 while I was there, right through '84.

1 Q. And can you tell us -- and just so you know, Doctor I'm
2 not familiar with that program, so I'm at your mercy.

3 THE COURT: We're talking about the USDA program now?

4 MR. WEBB: Yes, the USDA program.

5 THE WITNESS: And I'm not sure if I'm characterizing it
6 properly so we have to be careful, but the person from the USDA
7 who we knew that had worked there, Dr. Tso, and we dealt with a
8 fellow named Dr. Dayon (sic), and a bunch of people, but I was
9 involved in trying to modify the tobacco to make the tobacco
10 itself less toxic, and the principle that was advocated here is
11 that you could reduce the toxicity by removing the nitrogen in
12 the form of amino acids or protein from tobacco, and we tested
13 that in the Ames Test and it appeared to work to lower the
14 protein in tobacco, to lower the test scores from mutagenicity,
15 that was in line with people using cellulose type products. So
16 the suggestion was that the tobacco that was grown would be --
17 the protein would be removed, that protein actually was high
18 quality protein called fraction one protein, and then you would
19 take the material that's left over and use a reconstituted
20 tobacco type sheet making process and put that in your cigarettes
21 thereby having removed a considerable portion of the toxic
22 material.

23 BY MR. WEBB:

24 Q. And what happened -- and what was the United States
25 Department of Agriculture's role in that program?

1 A. I'm not sure, I just know that Dr. T.C. Tso and the
2 people that we talked with at that time -- remember I'm a
3 scientist, I was not involved in the politics of what was going
4 on at that time. Scientifically it was a good idea.
5 Scientifically the people at Philip Morris at that time agreed
6 that the nitrogenous compounds were more highly mutagenic and
7 they needed to be removed and this was a method for doing it.
8 So we took some of our programs and some of the programs in the
9 80 percent that we were talking about before. This is one of
10 those programs that was studied quite extensively at Philip
11 Morris.

12 Q. Just so you -- as far as what the United States
13 Department of Agriculture's involvement is you don't know?

14 A. I don't know whether any part of it was funded or -- all
15 I know is the people who were advocating it were associated with
16 the United States Department of Agriculture.

17 Q. As far as any organized effort by the government, such as
18 the Tobacco Working Group, to have a structure where you bring
19 together people from the public health community from the
20 scientific world, from the tobacco companies and from
21 government, and have them work together to develop a less
22 hazardous cigarette product, that has never occurred since the
23 Tobacco Working Group was shut down; is that correct?

24 A. I don't know.

25 Q. Are you aware of any?

1 A. Well, I'm thinking. I'm sitting here trying to think of
2 these recent efforts with the Center for Disease Control and
3 sending in the list of additives, and I don't know how you would
4 characterize those as being cooperative, helpful. To me they're
5 in the right direction, so I don't know how you characterize
6 those things.

7 Q. Well, because you apparently, as an expert you've read
8 all these documents from all these companies and the government,
9 have you seen any documents or records since the Tobacco Working
10 Group shut down that the National Cancer Institute, or the
11 Surgeon General, or anyone else in government has come forward
12 or tried to set up a program to work with the tobacco companies
13 with government and tobacco companies and public health all
14 working together as they did with the Tobacco Working Group to
15 develop a safer cigarette? Have you seen that in any of the
16 records that you have reviewed?

17 MR. GOLDFARB: Objection, asked and answered, Your Honor.

18 THE COURT: I'll let him answer.

19 THE WITNESS: I don't --

20 THE COURT: It may have been answered, but I'll let him
21 answer.

22 THE WITNESS: I'm not sure what kind of programs we're
23 talking about. But if you're talking about a program totally
24 funded by the United States government that would benefit the
25 cigarette companies through telling them how to develop a safer

1 cigarette, I have not seen any such programs.

2 BY MR. WEBB:

3 Q. Okay. Now, -- and by the way, one thing I forgot to ask
4 you, when Dr. Gori wrote those recommendations and guidelines
5 about how to reduce toxicity in cigarettes, he was the director
6 of the Tobacco Working Group; is that correct?

7 A. I believe so. That's my recollection.

8 Q. Now, Doctor, in your direct examination, you spend some
9 time discussing a Philip Morris nonconventional cigarette called
10 Accord, which has some similarities to the Premier product that
11 we've just talked about; is that correct?

12 A. Yes.

13 Q. And let's talk about that and your testimony about
14 Accord. When you were at Philip Morris, you did do some work on
15 what are called nonconventional cigarettes; is that correct?

16 A. Yes, it is.

17 Q. And nonconventional cigarettes, I believe you described
18 in the past, are projects in which Philip Morris was trying to
19 rethink cigarette design to come up with new ways of producing
20 smoke that might be less harmful; is that correct?

21 A. Yes.

22 Q. And one idea that we've talked about, and I won't spend a
23 lot of time on it, is the idea that we'll generate smoke by
24 heating tobacco at a lower temperature; is that correct?

25 A. That's one of the ideas.

1 Q. And you did scientific work on that concept while you
2 were at Philip Morris; is that correct?

3 A. I did.

4 Q. And it was your understanding or scientific opinion at
5 the time that when you develop a technology that actually heats
6 the tobacco at a lower temperature, you will generate less of
7 the compounds in smoke that might be harmful; is that correct?

8 A. That's the hypothesis that the data supports, yes.

9 Q. And you believe it, don't you, as a scientist?

10 A. It's not a matter of belief as a scientist, the data
11 supports it and so I'm forced to accept it until I disprove it,
12 so yes.

13 Q. Fine. I accept that.

14 So there's no question in your mind that the work that was
15 being done at that time to develop a nonconventional cigarette at
16 Philip Morris, you viewed that as something Philip Morris, was a
17 good thing for Philip Morris to do; is that correct?

18 MR. GOLDFARB: Objection, asked and answered, Your Honor.

19 THE COURT: I think it has been. Sustained.

20 BY MR. WEBB:

21 Q. Okay. Now, just to quickly go through that. The Accord
22 project, actually, when you were there was it called project
23 Delta?

24 A. Yes, it was a Delta and then there was a Beta and -- they
25 had different names for it at different times, but Delta was the

1 main name at the time that I was there.

2 Q. And Delta and Beta and Sigma, whatever those names were,
3 you were generally aware they eventually resulted in the
4 development of this product we call Accord; is that correct?

5 A. That's my understanding from -- of course I left in '84,
6 but from tracking it through the reports and things, it appears
7 that the Delta project became the Accord.

8 Q. In fact, the reason that you're commenting on it in your
9 direct examination is that you examined documents and records
10 that relate to the Accord; is that correct?

11 A. Yes.

12 Q. And that product, you understand it is in test markets
13 today, is that your understanding?

14 A. I'm not sure. I thought it was in test markets four or
15 five years ago, but I'm not sure if it still is today.

16 Q. Let's tell the Court what your understanding is. Is it
17 your understanding that as Philip Morris -- strike the question.

18 Let me show you an Accord. I'm going to hand you what is
19 marked as Joint Defense Exhibit 44876, and I'm just going to hand
20 this to you and I'm going to ask you to, obviously, we're not
21 going to smoke it, Your Honor, but I want you -- you're a
22 scientist. Can you describe for the Court your understanding of
23 what that product does, and tell it in your own words?

24 A. Well, this is slightly different than the last version I
25 have seen.

1 Q. Let me interrupt you, you are aware that Philip Morris
2 has continued to try to work on the product and try to improve
3 it; is that correct?

4 A. That's what I see, yes.

5 Q. And you've been generally aware that in test markets
6 Philip Morris has had some issues with what is called consumer
7 acceptability?

8 A. Well, let's call it that generally, but yes, I'm aware of
9 it.

10 Q. Okay. Go ahead and explain what the product does.

11 A. Anyway, these are specially made cigarettes that when
12 placed in here --

13 Q. They have tobacco in them?

14 A. Oh, yes, they're just special blends of tobacco, also
15 filtered, which when placed in here, there's an electric heating
16 in here it's a battery operated device. It heats it up and that
17 allows materials to be released from the tobacco which then are
18 drawn into the smoker's mouth. And one of the added advantages
19 of a product like this is that the heating profile is controlled
20 by a little computer chip so that the amount of the dosage can
21 be controlled by regulating that computer chip. So you have not
22 only -- not only do you have the idea of heating, as opposed to
23 burning, but you also have the idea of a dosage regulation.

24 THE COURT: And is the heat controlled, as well, by the
25 computer?

1 THE WITNESS: Yes, it is.

2 BY MR. WEBB:

3 Q. And so, if I understand it, if I were to smoke that
4 product, if I were a smoker, then I can inhale through the
5 filter but whatever -- there's five or six puffs or seven puffs
6 that get heated, that's all the puffs I can get; is that right?

7 A. Until you replace the cigarette.

8 Q. I have to put a new cigarette in. And the reason, at
9 least as a scientist or someone knowledgeable in safer cigarette
10 development, that you liked about the product is that as far as
11 this thing called "compensation" where people can draw, the
12 compensation is almost eliminated by that product, unless they
13 put a new cigarette in; is that correct?

14 A. The -- the main form of compensation with this product is
15 smoking more cigarettes, not sucking harder or blocking holes or
16 things of that type.

17 Q. And the other benefit is that there is no side stream
18 smoke from that product?

19 A. Very little, just the part that's exhaled by the smoker.

20 Q. Let's talk a little bit -- I'm not going to get too far
21 into it, but I believe you testified about it in the past. You
22 do recognize the technology that Philip Morris had to invest in
23 to develop that nonconventional cigarette is rather complex; is
24 that fair to say?

25 A. That is fair to say.

1 Q. In fact, just to have that in your hand there in this
2 courtroom, Philip Morris had to develop a special battery to
3 generate the power that is needed to operate that device; is
4 that correct?

5 A. That is correct.

6 Q. And Philip Morris actually had to go out and invent and
7 develop a new metal, M-E-T-A-L, alloy, in order to cause that
8 heating function to occur inside the device; is that correct?

9 A. That is correct.

10 Q. And as I understand -- and there's a computer in there, a
11 computer chip in there?

12 A. I indicated that, yes.

13 Q. You did. And that computer chip has to control the
14 battery, keep track of the number of puffs taken, and recognize
15 whether the cigarette is an Accord or not when it's put in
16 there; is that correct?

17 A. I wasn't aware of the last part, but that makes sense.
18 And the technology, of course, also has been used to develop a
19 device that you could deliver nicotine on without the cigarette
20 by a subsidiary of Philip Morris, Chrysalis.

21 Q. And you've seen test results for that product in the
22 materials you've reviewed?

23 A. Yes.

24 Q. And that product, because it uses this heating technology
25 as opposed to burning the tobacco, does substantially reduce

1 many of the constituents that the public health community
2 believes may be harmful to people; is that correct?

3 A. Substantially reduced compared to Marlboros, compared to
4 a high delivery cigarette not substantially reduced compared to
5 a Merit Ultima or Cambridge or Carlton.

6 Q. Okay. That's fair.

7 THE COURT: And Dr. Farone, let me ask you one other
8 thing. How does this cigarette, Accord, or a pack of these
9 cigarettes compare in price with other widely marketed
10 cigarettes?

11 THE WITNESS: I don't know the answer to that, Your Honor.
12 I don't think there's any difference, but I'm not sure.

13 BY MR. WEBB:

14 Q. In fact, as far as constituent reduction -- can I have
15 JDM 040039 on the screen, please.

16 I put on the screen an exhibit that's in this case that
17 shows some of the harmful smoking constituent reductions from the
18 Accord. Have you seen numbers like this in the past as you've
19 reviewed materials on Accord?

20 A. Yes, I've seen numbers on reductions. This one is
21 somewhat unique in that it compares it to Marlboro Light, which
22 I like.

23 Q. You think that's a good thing, isn't it?

24 A. To compare it to something that somebody knows about so
25 we understand what the reduction is compared to what, I think

1 that's a good idea.

2 Q. Okay. So, do you -- so Philip Morris in comparing this
3 nonconventional cigarette to a Marlboro Light is getting some
4 substantial reductions in certain smoke constituents; is that
5 fair to say?

6 MR. GOLDFARB: Your Honor, I'm going to object. At this
7 point it's not clear where the summary data that's being
8 presented on this chart comes from.

9 MR. WEBB: Your Honor, it comes from Joint Defense
10 Exhibit 50079. That's where the data comes from.

11 THE COURT: Well, no, I don't think that's the question.
12 I think the question is where does the data on JD 050079 come
13 from. I don't know that this witness knows, but you can ask him.
14 BY MR. WEBB:

15 Q. You probably know more about this than I do, Doctor.
16 You've actually reviewed some of the underlying test results; is
17 that correct?

18 A. Yes, but I haven't actually done -- I mean I don't know
19 where the number -- for example the NNK reduction which does not
20 seem horribly significant of 38 percent, I don't know where that
21 number comes from. I'm just taking it at face value that at
22 least you've compared it with Marlboro Lights. I accepted it on
23 its face value. I do not know how one calculated 38 percent.

24 Q. Okay. Let me ask you this: I take it as someone that
25 a -- as an expert in the development of safer cigarettes, you

1 viewed this product as at least a step in the right direction at
2 trying to develop a safer cigarette; is that correct?

3 A. A step, correct.

4 THE COURT: Are you going to be introducing, or attempting
5 to introduce this exhibit at some point?

6 MR. WEBB: I will, but I'll have to lay the foundation
7 with my witness.

8 THE COURT: You will.

9 MR. WEBB: And I was not going to offer it into evidence
10 now, Your Honor.

11 BY MR. WEBB:

12 Q. Let me go to a different subject matter, Doctor.

13 Doctor, in your direct examination you discuss the issue
14 of compensation; is that correct?

15 A. That is correct.

16 MR. WEBB: Could I have tab 413 brought up on the screen,
17 please.

18 BY MR. WEBB:

19 Q. And you -- let me read off your testimony. "Does the
20 method and degree of compensation vary depend on the differences
21 in the cigarette design and yield in two cigarettes?"

22 Answer, "Yes, if the difference between the two cigarettes
23 is relatively minor, smokers can just draw a little harder on the
24 cigarette. There is published literature in evidence that if a
25 smoker is accustomed to a cigarette, is given another level of

1 nicotine within the smoking of that one cigarette, because
2 nicotine gets to your brain so quickly, the smoker will adjust
3 the way they smoke and try to make the level of nicotine that
4 they receive the same as they are used to. In the context of
5 light cigarettes, and their full flavored counterparts, the major
6 means of compensation is simply to draw a little harder on the
7 cigarette. If you puff longer or take a deeper puff on such
8 light cigarettes you're essentially defeating the filter when
9 ventilation is used."

10 Now, this concept of compensation is a concept that's been
11 written about and studied extensively over the last 50 years; is
12 that correct, in connection with light cigarettes?

13 A. Light cigarettes didn't come into being until 1972. I
14 don't use the term "light" cigarettes ask "low-tar" cigarettes
15 interchangeably, so we need to be very careful here.

16 Q. Okay. Well, forget -- strike the 50. For a number of
17 years epidemiologist have studied whether or not light
18 cigarettes actually have a benefit; is that correct?

19 A. Again, I think -- I've put "light" in quotes in my
20 testimony here and I try to be very careful. A light cigarette
21 is one that says "light" on the pack.

22 Q. Okay.

23 A. Okay. So if you're -- if you're using "light" in the
24 term with regard to lower tar, then that's a different issue,
25 okay.

1 Q. I'm sorry. I want to make sure I understand, because
2 maybe -- when you say, "in the context of light cigarettes" --
3 when you put it in quotation marks, what is your definition of
4 lights?

5 A. Light cigarettes, for example there's Marlboro and
6 Marlboro Lights, okay, that's like 15 milligrams of tar and ten.
7 We saw Cambridge. Cambridge had 16 milligrams of tar and the
8 lights, so-called lights, version had 12, even though we also
9 saw that there was some that weren't called lights that had 2.
10 So when I'm talking about "lights" and their full flavor
11 counterparts, okay, I'm talking about those cigarettes that are
12 marketed as "light" cigarettes compared to the regular of that
13 same brand, and not talking about low-tar cigarettes like
14 Cambridge compared to Marlboro.

15 Q. Okay. Now, this -- the theory about whether compensation
16 really does take place in the long run, just so I understand
17 your testimony, is it your testimony that if you compare a
18 regular delivery cigarette with this light cigarette as you just
19 defined it, in your judgment there's total compensation and no
20 benefit received by the smoker?

21 MR. GOLDFARB: Your Honor, objection. Dr. Farone is not
22 offered as an expert on compensation, and the -- his testimony as
23 to compensation is in the context of his presentation on
24 cigarette design technologies.

25 THE COURT: He offered what is on the screen as one of his

1 major opinions. Certainly the defense has a right to
2 cross-examine him about what he means by it and what his
3 assumptions are. The objection's overruled.

4 BY MR. WEBB:

5 Q. Do you recall my question?

6 A. I don't think so, I'm sorry.

7 Q. Let me read it back. And I asked you the question, the
8 theory about whether compensation really does take place in the
9 long run, just so I understand your testimony, is it your
10 testimony that if you compare a regular delivery cigarette with
11 this light cigarette as you just defined it, in your judgment
12 there's total compensation and no benefit received by the
13 smoker, is that your testimony?

14 A. Well I'm not sure about the sentence. Can I explain what
15 I mean when I say "compensation"?

16 Q. Sure.

17 A. Okay. Basically we're talking about nicotine, okay, and
18 so nicotine -- smokers need or desire, however you want to
19 characterize it, a certain amount of nicotine, and if you give
20 them a cigarette that has less nicotine than they're used to or
21 they want or they desire, they will try to smoke that cigarette
22 to obtain that amount of nicotine. So compensation, in my mind,
23 isn't related to tar, it's related to nicotine. The tar may, in
24 fact, go up to the same level, may go up to a higher level.
25 Some of the chemicals may be greater or less, but nicotine is

1 the key that drives compensation, and I'm referring to products
2 that have been designed such that the nicotine deliveries are
3 only slightly different, and that makes it easy to obtain the
4 increased level of nicotine simply by drawing harder on the
5 cigarette. That's the limitation that I'm referring to here.
6 If we want to talk about what happens with really low-tar
7 cigarettes, we can, but that's the limitation of this, exactly
8 what it says.

9 Q. So my question -- I just asked you if you compare a full
10 delivery cigarette to what you call your light cigarette here,
11 which excludes low-tar, very low-tar --

12 A. Right.

13 Q. -- is it your testimony that there's total compensation,
14 and therefore, there's no benefit to the smoker?

15 A. My testimony is that the amount of nicotine they derive
16 will be essentially the same, and it depends on the details of
17 the design of the cigarette as to whether there's a benefit in
18 the reduction of less toxic chemicals. I think that's -- if
19 that's where we're headed with this, the chemistry depends on
20 what happens when you increase the level of nicotine from that
21 lower nicotine delivery cigarette.

22 Q. Well, am I correct, you agree, as I understand it, that
23 the ultimate determiner of whether one cigarette is safer than
24 another is through epidemiological studies; is that correct?

25 A. Well, the ultimate determiner, yes, in terms of the

1 epidemiology of what happens in humans, yes, that's the ultimate
2 determiner, yes, I agree.

3 Q. So we can explain that to the Court, this controversy
4 there has been over the years, as to whether if you lower the
5 tar and nicotine in cigarettes, whether the smoker over a period
6 of years really gets any health benefit from that, there's been
7 a controversy about that; is that correct?

8 A. I don't know that there's been a controversy. I mean, if
9 you lower it enough, just common sense tells you, if you lower
10 it enough you're going to get a benefit. So zero -- so if
11 you -- secondhand smoke, which is a certain amount of smoke
12 going to people, they're not smokers, but it's a certain toxic
13 dose those people don't get the same levels of COPD and lung
14 cancer. Cigar smokers who are subjected to smoke, so I don't
15 think there is any question in the epidemiology that if you
16 lower the chemicals sufficiently, you will get a benefit. I
17 think the question is how much do you have to lower it to get
18 what level of benefit.

19 Is that helpful?

20 Q. Well, I'm exploring this with you because I want to make
21 sure the Court understands your testimony because -- let's put
22 it in the framework of when you worked at Philip Morris. During
23 that time frame while you worked at Philip Morris, at the time
24 that you worked there, you already told us in detail and I'm not
25 going to go back through it, that you worked on developing lower

1 tar and nicotine cigarettes; is that correct?

2 A. That is correct.

3 Q. And you thought that was a good and proper thing for
4 Philip Morris and for you to do; is that correct?

5 MR. GOLDFARB: Objection, Your Honor, asked and answered.

6 THE COURT: Those questions have been.

7 BY MR. WEBB:

8 Q. Am I correct, that while you were at Philip Morris, one
9 of the issues that you at least wanted to address was whether or
10 not, in fact, what you were doing was doing any good; isn't that
11 right?

12 A. Yes, I think it's called a limbo stick hypothesis, how
13 low must you go in order to see a benefit, and we knew that that
14 level was extremely low. Again, 70 percent reduction isn't
15 enough, 80 percent is not enough. You've got to get the
16 reductions way down before you start to see a benefit. That's
17 based on the chemistry, and we hoped that that chemistry would
18 translate into epidemiology.

19 Q. And you were acting in good faith when you were -- when
20 you worked at Philip Morris as a scientist, working on lower tar
21 and nicotine products, you at least believed you were working in
22 good faith doing the best you could to try to develop what you
23 thought was a safer cigarette; is that correct?

24 MR. GOLDFARB: Objection, Your Honor, again asked and
25 answered.

1 THE COURT: Sustained.

2 BY MR. WEBB:

3 Q. Let me ask you this: As far as this issue of
4 compensation is concerned, while you were at Philip Morris, am I
5 correct, you were heartened by the fact that in 1981 the Surgeon
6 General came out with a report that actually reported that the
7 Surgeon General believed that filter tipped low-tar and nicotine
8 cigarettes did actually produce lower rates of lung cancer than
9 their higher tar and nicotine predecessors; is that correct?

10 A. That report came out in 1981 and -- I don't know what you
11 mean "heartened by". I mean that was an indication that we may
12 have come to the point on the dose response curve where you
13 start to see some benefit, but, of course, subsequent evidence
14 has said that, you know, we stopped decreasing tar. See, that's
15 based on a decrease from 35 down to 15 average sales weighted
16 tar in cigarettes and that stayed the same from that point until
17 today, so I'm not -- there was some evidence that -- as
18 presented in that report -- also in '79 I believe, I believe
19 it's in the '79 report also.

20 Q. It was in the '79 report. You were at Philip Morris both
21 in 1979 and 1981; is that correct?

22 A. That is correct.

23 Q. So let's look at 1981.

24 MR. WEBB: Can I have tab 1572.

25 BY MR. WEBB:

1 Q. This is the Surgeon General's Report for 1981, I believe,
2 sir.

3 MR. WEBB: And if you could go to the page -- go to tab
4 1573. Could we cull out --

5 BY MR. WEBB:

6 Q. Do you recall this language: "Smoking cigarettes with
7 lower yields of tar and nicotine reduces the risk of lung cancer
8 and to some extent improves the smokers chance for longer life,
9 however, provided there is no compensatory increase in the
10 amount of smoke." Is that correct?

11 A. Well, it says "the amount smoked".

12 Q. The amount smoked. I didn't mean to misread it.

13 Now, as I understand the testimony that you've given, at
14 least while you were working at Philip Morris at that time, when
15 that report came and the 1979 report came out you felt you were
16 heartened because you were doing the right thing; is that right?

17 MR. GOLDFARB: Excuse me, Your Honor, if we can just get
18 the witness an exhibit before questioning continues, I would
19 appreciate it.

20 THE COURT: All right.

21 MR. WEBB: Yes, definitely give him the exhibit.

22 MR. GOLDFARB: Thank you.

23 BY MR. WEBB:

24 Q. Dr. Farone, here's my question to you, have you testified
25 in the past that while you worked at Philip Morris in the time

1 frame when you were there, when the 1981 report came out, you
2 were greatly heartened by this document. "We thought we were
3 absolutely doing the right thing", do you recall giving that
4 testimony?

5 A. Yes, and if you could look at the preface of this
6 document, I think it's relevant to the answer because --

7 Q. Can I get an answer?

8 A. I said yes.

9 Q. You -- so while you were working at Philip Morris, as far
10 as where your mind was and where Philip Morris's mind was, you
11 were heartened because it looked like lower delivery cigarettes
12 were benefitting; is that correct?

13 A. Yes. But you have to understand what we mean by "lower
14 delivery cigarettes" and why it's in the preface of this
15 document.

16 Q. Go ahead.

17 A. If I could read it.

18 Q. You can.

19 A. It says, "At the present time a third of all smokers,
20 some 18 million persons, are smoking cigarettes with measured
21 yields of less than 15 milligrams tar. And this number is
22 increasing by approximately five percent per year. Most of
23 these persons have changed to lower yield cigarettes and the
24 expectation that this will somehow reduce the hazards of their
25 smoking."

1 The clear premise that we operate on at Philip Morris is
2 that 15 milligrams is not appropriate. You had to go below that,
3 that was why Merit was developed at 7 to 8. So leaving a sales
4 weighted average at 15 or 10 or some higher number, this number
5 had to keep on coming down and this was an indication that maybe
6 going from 35 down to wherever it was at that time, 12 or
7 whatever, was showing some signs of progress. But the key point
8 here is that this -- the expectation at Philip Morris, the
9 development of Benson and Hedges at 1 milligram of tar delivered,
10 and Cambridge at 0 point 0, the development of the Ultra lows, is
11 that that's where the entire market go that that would increase
12 to reduce those toxic substances delivered down to those levels.

13 Q. Now, on the issue that I would like to talk about, which
14 is what was actually going on in the minds of people at Philip
15 Morris back at the time frame when they were working on these
16 projects while you were there.

17 MR. WEBB: Can I have tab 1574 called up, please?

18 BY MR. WEBB:

19 Q. This will be your testimony in the little case, April
20 27th, 2000. And says, question, "All right, let me rephrase it.
21 In the 1979 Surgeon General is saying there's a relationship
22 between the tar content and the incidence of smoking related
23 disease?"

24 Your answer, "And I think I've testified probably 500
25 times that as working at Philip Morris in the time frame when

1 this thing was written we were greatly heartened by this
2 document, felt we were actually doing the right thing."

3 Was that a truthful statement on your part?

4 A. Of course, this is a year after we developed a 0 point 0
5 delivery cigarette. Of course that's the right thing. We're
6 not talking about Marlboro here, we're not talking about
7 Marlboro Lights, we're talking about going down to extremely low
8 levels.

9 Q. And you thought it was the right thing to do?

10 MR. GOLDFARB: Objection, asked and answered.

11 THE COURT: Sustained. Mr. Webb, I know Dr. Farone's
12 position at this point on a number of issues that you've asked
13 him about.

14 MR. WEBB: I will move on, Your Honor.

15 BY MR. WEBB:

16 Q. Doctor, let me take you to another area of your
17 testimony. You do offer some testimony, another low delivery
18 cigarette issue that you address in your direct examination is
19 your testimony that Philip Morris's Marlboro Light cigarette is
20 likely more mutagenic than it's full delivery counterpart,
21 Marlboro Reds. Do you recall that testimony?

22 A. Yes.

23 MR. WEBB: Let me put it up on the screen. Can I have tab
24 447 on the screen. And I think the question at --

25 THE COURT: And I -- my recollection that this is an area

1 of discussion where everybody should remember to go slowly.

2 MR. WEBB: And I will do that, I'll try to do that as best
3 I can.

4 BY MR. WEBB:

5 Q. Now, your direct examination, as I understand it, is
6 that -- is it generally true that light cigarettes have more
7 mutagenetic tar than the full flavored counterparts, and your
8 answer was, again, "Brands vary, however, where a light
9 cigarette is largely identical to its full flavor counter part,
10 as is the case for Marlboro and Marlboro Lights, except that the
11 light has dilution levels in the middle, in that middle 30 to
12 40 percent range, the tar from the light cigarettes is likely
13 more mutagenetic." Is that your testimony?

14 THE COURT: All right. Let's start this discussion and I
15 know you have it in your direct, Dr. Farone, but it will help me
16 to hear it again this morning, what's your definition of
17 "mutagenic".

18 MR. WEBB: That was actually going to be my next question.
19 Don't think I wasn't thinking of you.

20 THE WITNESS: Mutagenicity, or mutagenetic, is causing a
21 mutation or change at the cellular level. In other words, if I
22 have a cell that is functioning normally and it's reproducing
23 normally, and it's functioning normally and then I do something
24 to it chemically that causes the cell to either operate
25 differently or to reproduce differently, those are mutations, and

1 so chemicals that caused mutations are called mutagens, and the
2 effect of a mutagen is called mutagenicity.

3 BY MR. WEBB:

4 Q. Now, Doctor, this opinion that we've got on the screen
5 that you've put in your direct examination, did you discuss and
6 disclose that opinion in the expert report that you filed in
7 this case?

8 A. I'm not sure, Mr. Webb, because I haven't seen the expert
9 report in so long, but I mean, I've -- this has been the subject
10 of much of my testimony over the last three or four years. I
11 would be amazed if it wasn't there.

12 Q. I can't find it, but I'm going to give you -- can I have
13 JD 054080 -- and I think I'm just going to hand it to you. In
14 fact here's what I'm going to do. I'm going to handle it to
15 you, but I think -- I can wait and have you look at it on a
16 break, or you can do it right now. Do it right now.

17 A. It will just take me very quickly since I'm familiar with
18 it.

19 I don't see it addressed specifically, Mr. Webb. I see
20 indications of discussions of what it is. I see indications that
21 it needs to be tested for all of the specific carcinogens. I
22 don't see that -- a specific reference to Marlboro and Marlboro
23 Lights, if that's what the question is.

24 MR. WEBB: Well, can I have the opinion brought back up.
25 Can I have tab 448 brought back up, please.

1 BY MR. WEBB:

2 Q. The opinion that you expressed to the Court on the
3 screen, the opinion about this -- "However, where a light
4 cigarette is largely identical to its full flavor counterpart,
5 as the case for Marlboro and Marlboro Lights, except the light
6 has dilution levels in the middle 30 to 40 percent range. The
7 tar from that light cigarette is likely more mutagenetic." That
8 opinion is not set forth in that report?

9 A. Specifically that one, I agree. Just the underlying
10 chemistry of it. That's an example of the first part. Brands
11 vary, so I'm not saying that every low-tar cigarette has more
12 mutagenic tar than a higher cigarette, and I'm using that as an
13 example.

14 Q. Using what as an example?

15 A. The Marlboro versus Marlboro Lights, because that's one
16 for which we have data that I used in other cases, so I happen
17 to have data to use that as an example. I do not have similar
18 data from other -- a lot of the other pairs. I have it for
19 some. What we do know is when we increase dilution, generally
20 speak to mutagenicity, that was in the reports from Philip
21 Morris when I was there, very well known. This is an example of
22 a situation where that is likely to occur. And that's what it
23 says.

24 Q. Now, just so I know, the opinion that's on the screen now
25 that you've testified to under oath before this Court, when did

1 you come to that opinion for the first time?

2 A. The dilution opinion?

3 Q. The opinion on the screen, Doctor. The opinion that
4 you've given to the Court.

5 A. Probably 1980, 1979, something like that, when I was at
6 Philip Morris. We knew that increased dilution levels were more
7 mutagenic. We were concerned about that because one of the
8 basis of -- the laser perforation and going up to 95 percent
9 plus dilution was to make sure that he were over this segment in
10 the dilution range where we saw this effect. We knew that that
11 was the -- that that's what happened between Marlboro and
12 Marlboro Lights, Benson & Hedges, Benson & Hedges Lights,
13 between cigarettes of that kind of range, that opinion is
14 derived from evidence I had available to me from the work done
15 at Philip Morris, probably from '78 or '79.

16 Q. And just so I understand and the Court understands, since
17 it's not in your expert report, when did you first express this
18 opinion to a Court under oath?

19 A. I can't -- I don't recall. I mean, I know it was -- I
20 certainly know that in the case in Illinois, I did, because I
21 was asked that question. Remember, Mr. Webb, I respond to
22 questions, so I don't get a chance to just express opinions. So
23 I know I was asked that question in that case, and I think I've
24 been asked questions in other cases about increased chemicals
25 that result in increased mutagenicity in low-tar cigarettes, and

1 I think I've expressed virtually to every Court that the quality
2 of tar is as important as the quantity. So that if I had
3 1 milligram of tobacco specific nitrosamines, compared to
4 10 milligrams of glycerine, I think that's an example I used
5 over and over again, which would you rather inhale, it's okay to
6 inhale a little bit of glycerine I wouldn't want to inhale the
7 tobacco specific nitrosamines, but as far as this specific
8 example, I don't recall. I think it was probably the Illinois
9 case.

10 Q. What is the Illinois case?

11 A. At the time -- well, at the time that I was there, it was
12 the Miles case.

13 Q. What year did you testify in that case?

14 A. Year before last. I don't recall.

15 Q. A couple years ago?

16 A. Right, yes.

17 Q. Okay. And here's my question: Just so I know, as far as
18 reaching the opinion that you have on the screen there, do you
19 recall giving sworn testimony just ten months ago in the City of
20 St. Louis case where you testified under oath that a comparison
21 of the mutagenicity between Marlboro Lights and Marlboros, shows
22 they were about the same, they were comparable, and that with
23 such a small difference it would not affect safety. Do you
24 remember giving testimony like that under oath recently?

25 A. That's where -- because you have to reduce it -- the

1 change has to be great for safety, yes. That's nothing
2 inconsistent there, Mr. Webb. Neither of these things are --
3 this is a chemical thing we're talking about, and it's testing
4 that was done. If you increase dilution, you see this increase.
5 Neither -- no one has ever contended, and Monograph 13 points
6 this out very clearly, a light cigarette, as I defined it, going
7 from 15 to 10 milligrams poses no increase in safety whatsoever
8 because of the ease of compensation, so we're talking about a
9 chemical effect here. The problem is that when people see that
10 word "light", it is my opinion that they believe it's safer and,
11 in fact, it isn't, so that's what this is all about.

12 Q. So I understand what you are saying, based on what -- are
13 you telling the Court -- because when I looked at that opinion,
14 when you said the tar from the lights is likely more
15 mutagenetic, you later actually say you believe that Marlboro
16 Lights are more dangerous in this testimony, don't you?

17 A. Well, they are more dangerous because people are smoking
18 them thinking they are doing themselves some good, they think
19 they are safer. So whether it's more, which it is a little bit
20 in some of the data, or more likely, or its the same, you are
21 making no safer cigarette, there is no benefit to a smoker from
22 Marlboro Lights compared to Marlboro. That's the main point.
23 So that makes it more dangerous.

24 Q. Well I want to show the Court what you said about
25 dangerousness and then we'll show the Court what you said ten

1 months ago.

2 MR. WEBB: Let's go to page 120 of your testimony. That's
3 tab 1579, and if we could cull that out, thank you.

4 BY MR. WEBB:

5 Q. This is your testimony to this Court under oath. "What,
6 if anything, have Philip Morris mutagenicity test results
7 revealed about its cigarettes?" "Well, in the case of Marlboro
8 Lights, the Philip Morris test data I have reviewed on the level
9 of dilution for equivalent brands indicated that the product
10 design for their light cigarettes was more mutagenic than the
11 full flavored Marlboro, Marlboro Reds, and therefore predictive
12 of more potential cancer risk. These studies were repeated
13 multiple times over the past 20 years and continue to be
14 repeated to this day. The Philip Morris data, as was used by
15 Philip Morris, was a strong warning that their product design
16 change between a Marlboro Red and a Marlboro Light increased
17 ventilation, resulted in a potentially more dangerous product."

18 When I read that, I'm not the Court, obviously, but when
19 I read that I thought you were trying to communicate an opinion,
20 in pretty strong terms, that you believe that the Marlboro Light
21 is likely going to cause more cancer in people and is likely a
22 dangerous product.

23 MR. GOLDFARB: Objection, Your Honor. Counsel's
24 characterization of his reading of the testimony is improper. He
25 can ask the witness a question.

1 THE COURT: Well, you need to add a question, Mr. Webb,
2 and that is, is your interpretation of that written testimony as
3 you just stated it on the record, is that what Dr. Farone meant
4 to say?

5 MR. WEBB: I'll do it that way.

6 BY MR. WEBB:

7 Q. So, Doctor, do you agree that in reading that, do you
8 agree that you appear to be communicating to the reader, whoever
9 reads it, that you were trying to communicate that you actually
10 believe there's a good likelihood that Marlboro Lights is going
11 to cause more cancer in folks and is more dangerous?

12 A. Well, that's what I'm trying to communicate, but you now
13 have to ask me the reason why. Do I get to answer why?

14 Q. Well, first of all I would like to look at what you just
15 testified to ten months ago.

16 A. Okay.

17 MR. WEBB: Can I have tabs 1577 and 1578. This is your
18 City of St. Louis deposition, which I believe was about ten
19 months ago. Can I get the cover page of this to show the Doctor
20 whether he testified to this? Do you have the date, Kevin?

21 BY MR. WEBB:

22 Q. Do you recall giving a deposition in the City of St.
23 Louis versus these tobacco companies in December of '03?

24 A. Yes, I do.

25 Q. Okay. Could I come back to that page again?

1 A. Could I have the pages ahead of it?

2 Q. Yes.

3 A. So I understand the context.

4 Q. I'll get you the entire -- can we get the entire
5 deposition?

6 A. I really don't need the entire.

7 Q. I have to get that to give you the pages you want. And
8 I'm going to give them to you. Let's go through -- first of all
9 --

10 THE COURT: Since everybody is going to hunt for the
11 deposition now, let's take a break at this point. It's almost
12 11:00, we'll take a 15-minute break, please.

13 (Thereupon, a break was had from 11:00 a.m. until
14 11:15 a.m.)

15 THE COURT: Okay. Let me take up a preliminary matter. I
16 hope counsel have received copies of a proposed order from
17 Mr. Sundermeyer. Any problems with it?

18 MS. EUBANKS: No.

19 THE COURT: I gather that our great guru, Mr. Burgess, has
20 dictated to you exactly how to word this order.

21 MR. SUNDERMEYER: Actually, Your Honor, a CEO point for
22 everybody. Apparently, the problem is the docket entry, not the
23 actual pleading in the file. He can both physically take a
24 pleading out of a file and he can delete the pleading without any
25 problem from the electronic Website. What gives them fits in the

1 Clerk's Office is an attempt to delete the -- you know, the kind
2 of one-line docket entry on their docket. So he gave me the
3 language, and I have inscribed it.

4 THE COURT: All right. We're up to Order 680, everybody.

5 MR. SUNDERMEYER: Thank you, Your Honor.

6 THE COURT: Mr. Farone, I would like to ask you one
7 question to begin with. Is the reason that the issue of
8 mutagenicity is so important is because what we are looking at in
9 cancer is cells that have mutated into something that are
10 obviously deadly to the human race?

11 THE WITNESS: Yes, that is correct. All carcinogens are
12 mutagens, but not all mutagens are carcinogens, so you're either
13 going to have a cancer or you're going to have some other change
14 and very few of those changes are positive.

15 THE COURT: I wanted to make sure I understood what I
16 think is a pretty fundamental point.

17 Go ahead.

18 MR. WEBB: I understand, Your Honor.

19 BY MR. WEBB:

20 Q. Now, Doctor, I was showing you a deposition from your
21 City of St. Louis case.

22 Can I have that back up on the screen, please.

23 But you wanted to see this. I have the actual deposition
24 here, so let me give you that page, so you can put it in
25 perspective -- is page 58.

1 I'm sorry. I have to make sure I give you the right page
2 number here, Doctor.

3 Page 181 -- page 181 is the quote that I have up on the
4 screen.

5 A. It's page 46 in this.

6 Q. Pardon me?

7 A. It's page 46 in here.

8 MR. GOLDFARB: Your Honor, I just want to note for the
9 record that we haven't been given a copy so we can follow along.

10 MR. WEBB: Here.

11 MR. GOLDFARB: Thank you.

12 We've now been given a copy.

13 BY MR. WEBB:

14 Q. I'm going to give you a chance to review. Are you on the
15 right page?

16 A. Yes, I found it. It's page 46 in this. There are four
17 to a page here, so --

18 Q. Okay. Do you see where it says "page 181"?

19 A. Yes.

20 Q. Okay. And so the question that I highlighted here --
21 this was about ten months ago?

22 A. Yes.

23 Q. "Okay. I understand what you're saying. Have you seen
24 data on the difference in specific mutagenicity -- per milligram
25 mutagenicity between Marlboro Lights and Marlboro Reds?

1 "Answer: Yes, I believe I have. It's part of the Miles
2 case. I believe it's -- there's even some of it in this
3 document and some done for other tests that were run.

4 "Question: Now, the difference -- are Marlboro Lights
5 more mutagenicity, less mutagenicity or about the same on a
6 specific mutagenicity per milligram?

7 "Answer: I don't remember for the specific cases. I
8 think there's a small difference and they're comparable levels?"

9 Let me stop there. Just so I understand, based on all
10 the mutagenicity evidence that you've seen, the statement that
11 you said ten months ago in comparing Marlboro Lights and
12 Marlboro Reds as far as mutagenicity per cigarette per
13 milligram, the statement "I think there's a small difference and
14 they're comparable levels" -- was that a truthful statement?

15 A. Yes, but you have to read the context of this, because I
16 think --

17 Q. I'm going to go on, but --

18 A. Well, I want to go back.

19 Q. I'll let you go anywhere. Let me finish this and you can
20 go back or wherever you want to go, Doctor.

21 A. Thank you.

22 Q. I just want to know: That statement, was that a truthful
23 statement?

24 A. Which statement?

25 Q. The statement "I think there's a small difference and

1 they're comparable levels"?

2 A. Yes. And if you continue to read it, you'll see what the
3 difference that I'm talking about is.

4 Q. You go on to say: "There's no 50 percent difference. I
5 think there's a 10 percent difference or something like that.
6 Just off -- in the absence of data, it's always difficult.

7 "Answer (sic): Is that small difference, in your
8 opinion, enough to say that one is safer or less safe in terms
9 of specific mutagenicity?"

10 And your answer was: "No."

11 When you answered that question "No," was that a truthful
12 statement?

13 A. Yes. To that line of questioning, of course.

14 Q. Okay. Now, just so I understand, and I'll give you a
15 chance --

16 Could I have tab 1579 brought back up.

17 Before you leave that -- never mind.

18 Can I have tab 1579 brought back up.

19 Your testimony that I just showed you where you're
20 communicating that the data -- talking about your mutagenicity
21 test: "The test data I reviewed on the level of dilution --
22 indicates that the product designed for their light cigarettes
23 was more mutagenetic than the full-flavored Marlboros, Marlboro
24 Reds, and therefore predictive of more potential cancer risk."

25 And then down at the bottom, you say they potentially are

1 more dangerous.

2 My question is, sir, that in the testimony I just showed
3 you when you testified that the difference was so small and
4 they're so comparable that there's no difference in safety, do
5 those appear to be inconsistent to you?

6 A. Not at all.

7 MR. GOLDFARB: Objection, Your Honor. That's a
8 misstatement of Dr. Farone's testimony.

9 THE COURT: It's what?

10 MR. GOLDFARB: A misstatement of Dr. Farone's testimony.

11 THE COURT: No. The objection is overruled the doctor may
12 answer and certainly explain if he needs to.

13 THE WITNESS: Not at all. Let's go back to the first one
14 because -- let's start with: "Question: Now, let's assume we
15 have two products. I'm going to take it off of Marlboro Lights
16 and Marlboro Reds."

17 This is in regard to a specific document that the attorney
18 has in his hands.

19 "We have two products" --

20 BY MR. WEBB:

21 Q. I'm going to put it on the screen. I just don't know
22 what page. Can you just tell us what page?

23 A. Yeah. It's the bottom of page 179. This is a
24 hypothetical that we're doing here in the other case.

25 Q. I'll put it on the screen.

1 Could I have page 179 on the screen.

2 And what line are you reading from?

3 A. The initiation of this line of questioning, where it
4 says: "Now, let's assume." It's 179, which is on page 46.

5 Q. I have 179. Where do you want to start reading from?

6 A. Well, my 179 is different than that 179. My 179 says on
7 the bottom: "Question: Now, let's assume we have two
8 products."

9 That's a different transcript he has there.

10 Q. Okay. This is the city of St. Louis case?

11 A. There we are.

12 Q. Okay. That's fine.

13 A. "Now, let's assume we have two products." This is the
14 question. "I'm going to take it off of Marlboro Lights and
15 Marlboro Reds. We have two products and we want to compare them
16 on a whole different range of levels, okay. One might be safer
17 in some ways and the other might be safer in other ways. And we
18 focus down just on specific mutagenicity."

19 And I say: "Okay."

20 "Okay. And we now say that the difference between these
21 two cigarettes is less than 50 percent difference on specific
22 mutagenicity. Would you say that that difference, isolated by
23 itself as a factor, was not significant?"

24 I start to answer: "My definition of 'significant'" --

25 It's broken off.

1 "Your definition of 'significant,' that you could say one
2 was safer on specific mutagenicity than the other?

3 "Again, I think I answered that. It depends where on the
4 scale you are. If you're way up on the high end, 50 percent may
5 be insignificant. If you're on the low end, 50 percent may be
6 very significant.

7 "Okay. Now, let's take that exact hypothetical and we're
8 going to do it with Marlboro Reds and Marlboro Lights. If there
9 is a 50 percent difference in their specific mutagenicity, would
10 you say with respect to one or another, it's safer on that score
11 alone?

12 "In the absence of" -- I'm broken off again.

13 But the point is here that the context of this is, in the
14 case of the hypothetical, where 50 percent is considered to
15 be -- and I'm saying there's no 50 percent difference; however,
16 I think there's a 10 percent difference, which is the data from
17 the Miles case that I went through. And I don't have the exact
18 number for that. And if you cumulate it, if it's 10 percent
19 difference per cigarette and now I smoke 40 cigarettes a day,
20 that difference isn't significant in that -- you can't make the
21 statement on that one thing.

22 "Is that small difference enough to say that one is safer
23 or less safe in terms of specific mutagenicity?"

24 Q. What page are you on now, Doctor?

25 A. Page 182.

1 Q. All right. Let's go to page 182. I want to make sure --

2 Can we cull out where you -- what number --

3 A. The top part. You showed it before.

4 We're at the end of the line of questioning, where the
5 10 percent now is put into perspective. Is that small
6 difference between that measurement alone -- is that enough to
7 make it, on the scale that we're talking about? And the answer
8 is no, because I would have to see more data over other tests
9 with Marlboros.

10 But over a large amount of Marlboro testing, which is
11 what we had in the Miles case, not this specific hypothetical,
12 there was about a 10 percent difference. And if it's 10 percent
13 difference per cigarette and we say, "Okay, how many cigarettes
14 do they smoke," you know, that becomes -- you certainly can't
15 say it's safer. And that's what this other -- that's what I'm
16 saying. You can't say: "Is that small difference in your
17 opinion enough to say that one is safer?"

18 No, you can't say that.

19 Q. So in the St. Louis case, the question that you were
20 asked: "Is that small difference, in your opinion, enough to
21 say that one is safer or less safe in terms of specific
22 mutagenicity?"

23 The answer is no?

24 A. In that hypothetical case, where the data the person was
25 showing me -- that's correct.

1 If you ask the question: If you take that difference and
2 if you extrapolate it over a long period of time -- I assume the
3 epidemiology clearly is going to control this -- chemically,
4 there's a difference and that difference can be significant at
5 10 percent, depending on the statistics. It may have to be
6 20 percent different. You know, you have plus or minuses on
7 these tests. Sometimes 10 percent is significant; sometimes it
8 isn't.

9 But the general point is when you have Marlboro Lights,
10 the chemical composition of that tar -- it contains more
11 mutagens -- contains more NNK per milligram of tar and,
12 therefore, it is potentially more dangerous because we have more
13 nitrosamines per milligram of tar.

14 Q. Well, let me ask -- let's go on.

15 Right where we just stopped, can we scroll down to the
16 next question.

17 You were then asked: "Okay. So we're clear, because
18 we've gone on such a long train on this, but with respect to
19 mutagenicity per cigarette as opposed to per milligram, your
20 testimony is that with zero compensation, Lights would be safer
21 on mutagenicity per cigarette?

22 "Answer: That's correct. It would fall into the
23 category of one pack a day versus two packs a day."

24 Was that accurate testimony?

25 A. Well, if you don't have compensation, then if you are

1 smoking a low tar cigarette that absolutely delivers low tar and
2 you're smoking a higher tar cigarette that delivers high tar and
3 we know from the epidemiology that has been published that if
4 you smoke one pack a day for 20 years, your risk is less than if
5 you smoke two packs a day for 20 years, scientifically, I have
6 to say yes, it falls -- it complies with an epidemiological
7 conclusion of less risk, safer.

8 Q. So then if I understand what you are saying from your
9 testimony, that because there's a 10 percent difference -- I'm
10 just using laymen's terms -- because there is a 10 percent
11 difference on this one test, this mutagenicity test, you
12 concluded they are potentially more dangerous?

13 A. No. I'm concluding that 10 percent in the cigarette,
14 okay, is meaningful when you accumulate those cigarettes over a
15 lifetime of smoking -- that's how we got to this packs per day
16 for lifetimes over here -- and that lights are more dangerous
17 for two reasons.

18 Number one, there is no significant reduction in the
19 milligrams of carcinogen -- carcinogen per milligram of tar,
20 number one; and number two, they lead people to believe they are
21 so that they smoke them in manners that cause them to get just
22 as much toxins.

23 See, I'm a chemist and I focus in on the toxic chemicals
24 in the smoke.

25 Q. But I want to just make sure I understand. In fact, let

1 me just call up your testimony.

2 The test, as I understand your testimony, that is used on
3 mutagenicity is called the Ames Test?

4 A. That is one test, yes.

5 Q. And let me go --

6 Could I actually have tab 441.

7 This would be your written direct examination at page
8 119, if I could call that out.

9 I was trying to make sure I understand what you're
10 saying: "Question: What does it mean if an agent yields a high
11 rating using the Ames Test?"

12 Your answer: "A mutagenicity test that yields a high
13 Ames score indicates there's a potential risk for the tested
14 chemical or chemical mixture can cause cancer."

15 So do I understand, What you're saying there is that the
16 higher the Ames score is on the testing, the more likely it is
17 that the cigarette is carcinogenic?

18 A. That is correct, but you have to understand that when you
19 test the Ames Test on the same chemical from time to time, you
20 get different scores. And that was what that other line of
21 questioning was about.

22 So one time I test a chemical, the score might be a
23 thousand; the next time I test that same chemical, I might get
24 1,200. But we put into those tests controls with known
25 carcinogens so we know the carcinogenicity of those materials

1 and we relate everything back to these known controls.

2 So that was the issue in the other question, is how
3 different do you have to be before it's significant? Well,
4 that's a statistical problem. How many times did you do the
5 test? How many samples did you take? That kind of thing.

6 So this is a generalization, that a higher score versus
7 controls -- more potential risk that it can cause cancer. It
8 may be a teratogen; it may provide a benign mutation, but that's
9 the potential risk.

10 And that's why in all of the chemistry that I do for the
11 compounds my company makes, we worry about this. If it scores
12 high on an Ames Test, greater -- similar to a known carcinogen,
13 it says here: "It's always -- it's usually a candidate for
14 further testing for carcinogenicity."

15 Q. I actually don't understand that answer, but it's not
16 important. I'll ask it again.

17 Are you trying to tell the Court and us in that sentence
18 that the higher the Ames Test score is when testing cigarette
19 tar, the more likely it is that the cigarette tar is
20 carcinogenic?

21 A. That's what -- it's more likely that it can cause cancer,
22 yes.

23 Q. Okay. Have you ever testified in the past that, in your
24 opinion, there's no relationship between mutagenetic (sic)
25 potency and carcinogenetic potency in humans?

1 A. No. There's no direct relationship between -- that's
2 correct -- between mutagenic potential in this test and
3 carcinogenic -- cancer in humans because this isn't a human;
4 this is a bacterial cell we're using. It is an indicator; it's
5 potential risk. It indicates that it needs to be tested
6 further.

7 Q. Let me make sure.

8 Can I have tab 442.

9 This is your testimony from the Miles case in a
10 deposition on July 30th, 2002. And the question I called:
11 "Okay. So do you agree" --

12 THE COURT: What's the objection?

13 MR. GOLDFARB: I'd like the witness to have a copy of the
14 deposition so he can follow along and put his answer in context,
15 Your Honor.

16 THE COURT: All right.

17 MR. WEBB: Certainly.

18 Your Honor, the only reason it's taking a minute, there's
19 about 70 transcripts that this witness has and so we've tried to
20 organize them in a way to find them quickly and we'll work real
21 hard in not having any delays.

22 BY MR. WEBB:

23 Q. I'll give you a chance to find the page number, Doctor.

24 A. I think I recall this one, actually.

25 Q. Do you? Okay.

1 I just want to make sure -- in the Miles case, you were
2 asked the question on the bottom of page 83 and at the top of
3 page 84 of the deposition transcript: "Okay. So do you agree
4 that the relationship between mutanogenic potency" --

5 Now, I'm going to stop there. I read that "potency" to
6 mean a higher mutanogenic score on the Ames Test, right?

7 A. That's correct.

8 Q. All right. So a higher score "and whether that has any
9 quantitative carcinogenicity" -- does that mean the tendency to
10 cause cancer?

11 A. No. "Quantitative" means if I get a score of 200 in this
12 test, it means a risk of .79 that somebody's going to get
13 cancer. "Quantitative" means that I have defined the
14 relationship so that when I use this test, it can substitute for
15 a human carcinogenicity test.

16 In other words, I know that if I get a score of 20 on
17 this test, 20 people out of a hundred who use this product are
18 going to get cancer. And that's what this directs to. And no
19 one has ever established that link.

20 Q. But I mean -- and I'm looking in laymen's terms. If
21 we're trying to figure out whether Marlboro Lights are in fact
22 more dangerous, then we're talking about whether they're likely
23 to cause more cancer; is that correct?

24 A. Likely to; that's correct. And the higher score means
25 they're more likely to cause cancer. But because it has a

1 higher score, I can't tell you whether that means five out of a
2 hundred thousand more or ten out a hundred thousand more. It's
3 not quantitative.

4 Q. So then, do I understand your testimony: You agree,
5 then, that science simply does not know what level of increase
6 in Ames mutagenicity is necessary to result in any quantifiable
7 increase in smoking-related diseases in humans?

8 A. No.

9 MR. WEBB: Could I have tab 444 called up, the Turner
10 deposition, May 5th, '03. And I think I have to --

11 THE WITNESS: Did you -- could I have the question back,
12 because I may have been looking at the next -- maybe it would
13 make this simpler if I could have the question again.

14 BY MR. WEBB:

15 Q. Is it true, Doctor --

16 And keep looking for it.

17 But is it true, Doctor -- do you agree that science
18 simply does not know what level of increase in Ames mutagenicity
19 is necessary to result in any quantifiable increase in
20 smoking-related diseases in humans?

21 A. Yeah. That's -- for the Ames -- I've answered that in
22 this way, the same way: For the Ames Test, that's correct.

23 THE COURT: So when you said "No" before, that was --

24 THE WITNESS: I didn't hear him qualify it by "Ames Test,"
25 because in this testimony, I point out that if you actually

1 measure defective genes in people, then you would have a
2 quantitative measure.

3 MR. WEBB: Well, I do want to make sure I'm clear on this
4 thing.

5 Could I have tab 444 called up.

6 THE WITNESS: It's actually right in this one, too. The
7 same testimony.

8 BY MR. WEBB:

9 Q. Well, let me -- if I could --
10 Do you recall being asked this question --

11 THE COURT: You never want to get a lawyer off track,
12 Dr. Farone.

13 THE WITNESS: Sorry.

14 THE COURT: Everybody's got their scripts.

15 MR. GOLDFARB: Again, Your Honor, I want to be sure. Has
16 Dr. Farone been given a copy of --

17 MR. WEBB: We'll give him a copy. I have it right here.

18 BY MR. WEBB:

19 Q. I'll give you this transcript. This is on page -- which
20 volume is this? I don't want you to have to search too far.

21 A. That's all right. I'll find it. Not a problem.

22 Q. The question I put on the screen:

23 "Question: But we don't know what level of increase in
24 Ames number is necessary to result in any quantifiable increase
25 in smoking-related diseases in humans?"

1 And your answer is: "For some chemicals, we do. For
2 cigarette tar, we don't."

3 Was that an honest and truthful statement on your part?

4 A. Yes. And it's very consistent with all of this. And
5 just up ahead of that, what I'm saying is ten percent doesn't
6 match --

7 MR. WEBB: Could I ask the witness -- I asked him if that
8 was his testimony and he answered the question.

9 THE WITNESS: I'm sorry.

10 BY MR. WEBB:

11 Q. Now, let me take this a little bit further. In your
12 testimony, this opinion you reached about more mutagenicity was
13 based on your understanding that Marlboro Light has a filter
14 ventilation in the range of 30 to 40 percent; is that correct?

15 A. No. I don't -- that's in that range. It changes, of
16 course, from time to time. It's been as low as 20. It changes
17 quarterly. So it could be 20 percent; it could be -- but that's
18 the range. It's not 90. The point is that it's not 75 or 80 or
19 90 percent.

20 Q. Well, let's make sure we know what you're saying because
21 I've got --

22 Could I have tab 445 called up, page 57.

23 "Does ventilation reduce the toxicity of the smoke?"

24 Your answer in your direct examination: "It depends on
25 how much ventilation. Relatively low levels of ventilation --

1 30 to 40 percent -- actually increase the toxicity of the smoke,
2 according to the Ames mutagenicity studies. However, higher
3 levels of ventilation, going up to 70 -- getting up to 70 to 90
4 percent, reduce the toxicity because the smoke is too diluted."

5 Is that correct?

6 A. Yes.

7 THE COURT: What page are you on now?

8 MR. WEBB: That is page 57.

9 THE COURT: Of the direct testimony?

10 MR. WEBB: Of the direct testimony, Your Honor.

11 MR. GOLDFARB: Your Honor, I just want to note for the
12 record that counsel didn't precisely read Dr. Farone's answer. I
13 think he misread around line 14 of page 57.

14 MR. WEBB: I'll read it again. I didn't intend to.

15 MR. GOLDFARB: Okay.

16 BY MR. WEBB:

17 Q. "However, higher levels of dilution, getting up to 70 to
18 90 percent, reduce the toxicity because the smoke is so diluted
19 with air."

20 Is that your testimony?

21 A. Yes. Yes, it is.

22 MR. WEBB: And could I also have page 58. Go to the next
23 page of his testimony.

24 BY MR. WEBB:

25 Q. And then the next question -- I'm going to call this out.

1 I'm sorry. The one -- this is on page 5- -- could I go
2 back to page 58.

3 And your answer: "Again, brands vary. However, when a
4 light cigarette is largely identical to its full-flavored
5 counterpart, as the case for Marlboro and Marlboro Lights,
6 except the light has dilution levels in the middle, 30 to
7 40 percent range. The tar from that light cigarette is likely
8 more mutagenetic."

9 Is that your testimony?

10 A. Yes. It's not very low ventilation dilution and not very
11 high.

12 Q. Where did you get the idea that Marlboro Light actually
13 had a ventilation dilution range in the 30 to 40 percent range?

14 A. I did not go back and review all of the Miles data for
15 that. It's in the middle of the range. So if it's 20 percent,
16 it doesn't change the conclusion. It's just in the middle of
17 the range. Zero percent dilution gives you one value.

18 And in Monograph 13, there's other examples of this. As
19 you go up higher and you do other thing to cigarettes, the
20 toxicity can increase. That's what I'm trying to say here.

21 Q. Well, I'm just reading. Does this say, at least to the
22 Court, that Marlboro Lights are in the range of 30 to
23 40 percent?

24 A. I don't have all of the ranges that have been used for
25 Marlboro Lights from 1972 to 2004, so that's 32 years of

1 cigarette design changes.

2 All I know is that the data that is presented that I
3 have -- it's all in my reliance set; it's in the mutagenicity
4 supplement, that all of that data -- and I testified to this at
5 great length in Miles -- shows that as you increase dilution,
6 the toxicity in that test increases, which is more likely than
7 not associated with a toxicity increase in smokers, and if you
8 go up high enough, it goes back down.

9 So if it's 22.34 percent, I apologize for not knowing
10 exactly what it is.

11 Q. I'll ask my question again and see if you can answer it
12 this time.

13 All I'm asking you is: When you said this to the Court
14 in this sworn testimony, that you are clearly at least
15 communicating in that paragraph that you believe Marlboro --
16 when you compare Marlboro -- Marlboro Lights are in the 30 to
17 40 percent range; is that correct?

18 MR. GOLDFARB: Objection, argumentative, Your Honor.

19 THE COURT: Overruled.

20 THE WITNESS: No, I don't believe that's what I intend to
21 communicate here. I'm talking about Marlboro and Marlboro Lights
22 as being essentially identical except for dilution and then I'm
23 talking about a dilution range. And I can understand from the --
24 my English wording of this that maybe that was an incorrect --
25 maybe I had to qualify it a little bit more.

1 But I'm not trying to specify a specific range for
2 Marlboro Lights. But Marlboro Lights, as I understand it from
3 documents, from sworn testimony in the Miles case, the basic
4 difference between Marlboro Lights and Marlboros -- on the Philip
5 Morris witnesses -- is the dilution; they diluted it more.

6 And so there's an increase in dilution going from Marlboro
7 to Marlboro Lights, a very small reduction in tar. And that's
8 what this is about, not trying to define the dilution level of
9 Marlboro Lights.

10 BY MR. WEBB:

11 Q. Well, I'm sorry, but you clearly are communicating that
12 as far as this problem of these cigarettes being more dangerous,
13 that the problem is going to be if the dilution -- you say "when
14 the dilution levels are in that middle, 30 to 40 percent,
15 range."

16 You didn't say in the middle of 19 to 40 percent; you
17 said 30 to 40 percent.

18 A. I could have said 15 to 70 if I wanted to qualify it
19 more. I'm trying to give a general indication that the toxicity
20 increases with dilution, for which there is no refutation in
21 anything I have ever seen, and then it goes back down again when
22 you get above 60 percent.

23 Q. Doctor, is it true that the truth is that when you look
24 at the data, Marlboro's ventilation dilution rate is not in that
25 range at all; it's down around the 20 percent range?

1 A. That's some of the designs I've seen, yes.

2 Q. And did you set forth anywhere in this report, in your
3 testimony to the Court, that the Marlboro ventilation range is
4 lower than the range that you put forth in your testimony as
5 that which would cause more danger?

6 A. It's in -- it's not in the report, no.

7 Q. Is it anywhere in this testimony?

8 A. Only in the documents that support it.

9 Q. I'm sorry. What documents are you talking about?

10 A. I believe in the mutagenicity supplement to the documents
11 that were provided, there is actual dilution levels. I did not
12 go back and specify that. I wasn't trying to say that Marlboro
13 Lights has a specific dilution level.

14 Q. Because you do know -- you do know from the documents
15 you've seen that the Marlboro dilution range is probably
16 30 percent under -- if Marlboro dilution range, which you just
17 told me is around 20 percent, that's substantially under the
18 range that you put -- strike the question. Strike it.

19 As far as the testimony that you've given this Court that
20 you've actually -- you've actually reached the conclusion, based
21 on this one test, this Ames Test, that Marlboro Light cigarettes
22 are potentially more dangerous than Marlboro Red; is that
23 correct?

24 A. I don't agree with that assessment.

25 MR. WEBB: Could I have page 120 of his testimony, tab

1 443, please.

2 "Question: What, if anything, have Philip Morris's
3 mutagenicity test results revealed about its cigarettes?

4 "Well" --

5 BY MR. WEBB:

6 Q. I read this before so I don't --

7 Don't you say in here that based on this mutagenicity
8 test, which is the Ames Test, on that one test, you concluded
9 and told the Court there's more cancer -- more potential cancer
10 risk and there's more dangerous product.

11 Is that what this paragraph says?

12 A. The paragraph is in response to the question about
13 mutagenicity testing. It doesn't ask me what other factors are
14 involved in that conclusion, such as epidemiology, such as
15 chemical -- I mean, that is responsive to: "What, if anything,
16 have Philip Morris's mutagenicity tests revealed?"

17 Okay. And the mutagenicity test reveals that there's a
18 slight increase in mutagenicity. And that was a warning that
19 their product design change --

20 Q. I'm sorry, Doctor. The question that you answered for
21 the Court in this written direct is: "What, if anything, have
22 Philip Morris's mutagenicity test results" --

23 That's the Ames Test result; is that correct?

24 A. Right.

25 Q. That's one test, is it? The Ames Test is one of many

1 different tests? The battery of tests that you told us all
2 about yesterday -- this is one of those batteries; is that
3 correct?

4 MR. GOLDFARB: Objection, Your Honor, asked and answered
5 and it's argumentative.

6 THE COURT: No, overruled.

7 THE WITNESS: It's one of seven tests that were used;
8 that's correct. And it's the one that Philip Morris relied on
9 the most heavily for the determination of potential
10 carcinogenicity.

11 BY MR. WEBB:

12 Q. So based on that test, you clearly -- based on that test,
13 according to that answer -- based on that test, you concluded
14 they're predictive of more cancer risk and potentially more
15 dangerous, based on the one test; is that what you're
16 communicating in that answer?

17 A. I'm not sure what you mean by "one test."

18 "These studies were repeated multiple times over the past
19 20 years and continue to be repeated to this day," is what it
20 says. So if you're characterizing the Ames Test as a single
21 kind of test, I agree with you. That's what this question was
22 about, because Philip Morris relied on that specific single test
23 for many, many years, even to this day, as its measure of
24 mutagenicity. So that's all the data that I had.

25 Q. Well, did you -- did you tell the Court yesterday -- do

1 you remember testifying yesterday when I was asking you
2 questions that: "In order to determine if a cigarette product
3 is safer, that a company should look at a battery of tests?"

4 Do you recall that testimony?

5 A. Yes.

6 Q. All right. Was that truthful testimony, that in order --
7 Doctor -- I'm sorry. I apologize.

8 Doctor, when you told the Court yesterday that in order
9 for a cigarette company to determine if a product is safer, that
10 they should do a battery of tests, was that testimony truthful
11 that you gave yesterday?

12 A. Absolutely.

13 Q. Okay. And so today -- today, in that paragraph, when you
14 communicated to the Court that you used one test to reach that
15 conclusion --

16 A. What -- sorry, sir.

17 My conclusion is "potentially more dangerous." I mean,
18 there's a difference between testing products to see if it's
19 more dangerous wherein one test would give you a warning and
20 testing to see whether it's safer, where you should never -- I
21 mean, we've already agreed that epidemiology is the final
22 arbitrator. I've agreed that there's a battery of tests.

23 But if in the early testing along that line -- remember,
24 I had seven things up there and chemical testing was the first.

25 If I doubled the level of carcinogens in smoke, okay, do

1 I need to go through the rest of the testing to conclude that
2 it's potentially more dangerous? I don't think so.

3 Q. Well, let me ask you this: When -- so I know what --
4 I'll leave the topic.

5 I take it the reason that you put the word "potential" in
6 behind both "cancer risk" and "dangerous product" is that the
7 truth is that based on this one mutagenicity test result, you as
8 a scientist could not conclude that in fact Marlboro Lights are
9 more dangerous; is that correct?

10 MR. GOLDFARB: Objection, that misstates --

11 THE COURT: That is sustained. The wording you used was
12 "one mutagenicity test result."

13 The testimony indicates that there were many tests over
14 the past 20 years, so that's a mischaracterization.

15 MR. WEBB: I didn't intend that and I'll rephrase the
16 question.

17 THE COURT: All right.

18 BY MR. WEBB:

19 Q. When I say "one test," the test I'm talking about --
20 there were many different Ames Tests done; is that correct?

21 A. That's correct.

22 Q. But the test, though, is the Ames Mutagenicity Test?

23 A. That is correct. That's one type of test.

24 Q. On that type of test, am I correct that the reason that
25 you put the word "potential" both in front of "cancer risk" and

1 whether it's a dangerous product is that based on just Ames Test
2 results, you as a scientist could not conclude that in fact
3 Marlboro Lights are actually more dangerous or cause more
4 cancer; is that correct?

5 A. In people, that's absolutely correct.

6 Q. Thank you. Now let me move on to a different topic.

7 And this relates to the statements that you made in your
8 direct examination about Philip Morris's failure to do
9 biological research.

10 Could I have tab 458, which is page 134 of your direct
11 examination, lines 6 to 9.

12 I showed you this yesterday. This gets back to the --
13 these gentlemen's agreements that you say you found out about.
14 But the testimony that you gave -- I'll read it off: "It's my
15 testimony that defendants had an agreement not to compete
16 against each other in the marketing of cigarettes by claiming
17 that their products were potentially any safer than other
18 cigarettes."

19 I've already asked you about that agreement. I don't
20 have any more questions about that. This next agreement:
21 "Related to that agreement was an agreement not to perform
22 certain biological research on commercially marketed cigarettes
23 in their domestic facilities."

24 That agreement not to do biological research, I want to
25 ask you some questions about that. First of all, again, so that

1 we can help the Court put this into perspective, can you tell
2 the Court on what date that agreement was entered into?

3 A. No. This is, as I say, a gentleman's agreement. By
4 definition, there's no piece of paper that confirms it, in my
5 opinion.

6 Q. Well, if there was such an agreement by people, you were
7 not present when it was entered into; is that correct?

8 A. I've already answered that. That's correct.

9 Q. I didn't mean -- this is a different agreement, right?

10 A. No. No, no. It's related to it. It's part of the same
11 deal. I've test- -- I mean, this is all the same thing, that
12 we're not going to add -- there's three parts to it, if I
13 recall.

14 We're not going to test each other's products to provide
15 data which could be used in court -- you know, we're not going
16 to do inhalation testing on Marlboro versus Winston, that kind
17 of thing. We're not going to make safer ones that we can sell
18 and say they're safer and prove it by doing that same kind of
19 testing.

20 So it's all part of the same thing, of trying to keep in
21 lockstep with each other so that we kind of do not get into
22 trouble for issues related to smoking and health.

23 Q. Just so I -- when you say -- well, whatever happened in
24 some room somewhere between somebody that an agreement was
25 reached not to do biological research, you were not present?

1 A. That is correct.

2 Q. And you don't know which tobacco companies were in the
3 room, if it happened, and agreed to it; is that correct?

4 A. That's correct.

5 Q. And as I think I established with at least what I thought
6 was the first agreement with this biological research
7 arrangement, the people at Philip Morris who you say told you
8 about this, you have no evidence that those people were ever
9 present when the agreement was entered into; is that correct?

10 A. I already said I don't know who was present.

11 Q. It's a little different. Okay. I want to make sure I
12 get an answer to my question. You told us in your direct
13 examination that you learned about this agreement from certain
14 Philip Morris employees; is that correct?

15 A. That is correct.

16 Q. Those employees that you say told you, am I correct, they
17 did not tell you or indicate to you that they were present and
18 had any firsthand knowledge about what was said whenever the
19 agreement was entered into; is that correct?

20 A. They never said that, that's correct.

21 Q. Now, in your direct examination you identify certain
22 documents that you contend is proof that the gentlemen's
23 agreement is ongoing; is that correct?

24 A. I believe so.

25 Q. Okay. Well one document you referred to in your direct

1 examination was a Helmut Wakeham document, and let me show it to
2 you.

3 MR. WEBB: Can I have tab 460.

4 THE WITNESS: Can we first find out what testimony you're
5 referring to?

6 MR. WEBB: I am, that's what I'm doing.

7 THE WITNESS: Oh, okay.

8 BY MR. WEBB:

9 Q. I'm going to show you your testimony, and if you have it,
10 this is testimony from page 136 of your testimony. Are you with
11 me?

12 A. Yes.

13 Q. Okay. This is your testimony where you identify on
14 November 15th, 1968 draft of a memorandum by Helmut Wakeham, who
15 was Helmut Wakeham?

16 A. He was the Vice President of Research and Development
17 when I interviewed, and he became a Senior Vice President to --
18 I worked with on acquisitions and various other subjects.

19 Q. Now, and this is in 1968, 36 years ago?

20 A. This document is, yes.

21 Q. That's what I'm saying the question is: Is there a
22 reference in this document that bears on your testimony about
23 the gentlemen's agreement? And you say on the fourth page,
24 Bates number ending 7058 Wakeham wrote, and you go on to say --
25 you're quoting from the document; is that correct?

1 A. That is correct.

2 Q. "We have reason to believe that in spite of the
3 gentlemen's agreement from the tobacco industry in previous
4 years that at least some of the major companies have been
5 increasing biological studies within their own facilities". So
6 this document that you cite in your testimony, at least a plain
7 reading of it would indicate that if there ever was such an
8 agreement, this document says 36 years ago companies weren't
9 following it?

10 MR. GOLDFARB: Objection, it's a misstatement of the
11 testimony.

12 THE COURT: Overruled.

13 THE WITNESS: No, that's not what it says. I mean, you
14 can take that implication out of it. It says what it says, that
15 people -- you know, the thing about gentleman's agreements is
16 that -- and that's what I was told when I was at Philip Morris,
17 is we're going to cheat on them a little bit, but we're going to
18 live up to the general kind of thing. We're going to send our
19 projects over to INBIFO and get them tested. We're going to
20 sneak around the edges of the agreement so they don't know what
21 we know, but we're going to basically not violate the agreement
22 to the best of our ability and if they violate it they're going
23 to complain, like they did, and shut down some of the research at
24 RJR, so this is totally consistent with my understanding of
25 gentleman's agreements.

1 BY MR. WEBB:

2 Q. Let me just ask you, I take it Doctor, as you have
3 reviewed documents to be an expert witness, you've tried to be
4 fair and impartial; is that fair to say?

5 A. I hope so.

6 Q. You're trying to be objective, aren't you?

7 A. Yes.

8 Q. And so, just when you read that document over, and the
9 document says that in spite of this agreement, the tobacco
10 industry in previous years before 1968, some of the major
11 companies have been increasing biological studies within their
12 own facilities. You told us a moment ago the agreement was not
13 to do research, biological research, within their own
14 facilities. Was that the agreement that you just told us about?

15 A. Well, we have to define what we mean by "biological",
16 it's animal testing, whole animals, you can do cell level
17 testing, so this biological -- the starting of doing things like
18 the Ames Test where -- Ames Test where you use cell level
19 bacteria is okay as long as you don't test competitive products
20 and as long as you don't do inhalation. There's a whole series
21 of things you could or couldn't do and I had to live with that
22 for seven or eight years and I'm there talking to this man and
23 this is what you can do and here's what you can't and here's
24 why.

25 Q. Are you now talking about what people agreed to at a

1 meeting 50 years ago that you were not at?

2 A. No, I'm talking about what I was told by the man who
3 wrote this memo was the policy of Philip Morris because of
4 whatever, whoever it was agreed to at that time.

5 Q. So, just so I know -- I don't want to -- you did just a
6 moment ago in your direct examination, you said there was an
7 agreement not to do biological research at domestic facilities;
8 is that correct?

9 A. Biological testing, yes, that's what it says. It's a
10 reference, you have to read the whole thing, it's talking about
11 testing, all in whole animal testing had to be done outside of
12 the country and we had an elaborate system for doing it, but if
13 you consider the Ames Test to be a biological test, then you
14 could do that.

15 MR. WEBB: Could I have tab 458?

16 BY MR. WEBB:

17 Q. I want to go back to your testimony and make sure I'm not
18 confused about something.

19 In your sworn testimony to the Court, you said "related
20 to that was an agreement not to perform certain biological
21 research on commercially marketed cigarettes in their domestic
22 facilities"; is that correct?

23 A. Could you read the next one please?

24 Q. "What types of biological research were covered by that
25 agreement?" "Testing" --

1 "What types of biological research were covered by that
2 agreement?" Answer, "Testing involving cigarettes or products of
3 cigarette smoke, like tar, that used intact animals. This
4 includes mouse skin painting, long term inhalation studies, short
5 term acute toxicity studies, long term cancer studies and so
6 forth."

7 A. It doesn't include Ames Test and HeLa cell test and other
8 kinds of -- I've tried to be very careful here in explaining
9 this in terms of the exact tests that I was told were part of
10 this agreement.

11 Q. Let me go back to the Wakeham document. Apparently,
12 whoever wrote this document, Mr. Wakeham agreed whatever the
13 terms were of the gentleman's agreement, people were violating
14 it?

15 A. You can read that it way.

16 Q. Do you read it that way as an expert trying to be fair
17 and impartial?

18 A. No, because I don't know exactly what biological studies
19 he's talking about. They could be the allowed kind, which would
20 be an indication that we might be getting up to the point where
21 they might be doing the unallowed kind, or they might be doing
22 the unallowed (sic) kind. Now, to be fair, I do I know from
23 other documents that there were suspicions in all of the
24 companies, right, that the other guys were doing some of the
25 unallowed research. We had rat studies going on for nicotine,

1 and that was talked about at some of the other companies, so
2 there's always this question about who's doing what.

3 Q. But if we're just trying to be objective here, when you
4 see the words in a document by Mr. Wakeham that you're quoting
5 from, which is a document prepared before you got to Philip
6 Morris; is that correct?

7 A. That is correct.

8 Q. And he says, "We have reason to believe that in spite of
9 the gentleman's agreement, biological research is going on" did
10 you at least read that to mean that that man, Mr. Wakeham was at
11 least -- he was articulating his view that the gentleman's
12 agreement was not being followed?

13 A. No, I didn't, because I had the opportunity to ask
14 Dr. Wakeham about this, so --

15 Q. That's fine, I accept your answer.

16 A. Okay.

17 Q. Now, the next document you cite, was there Ames Testing
18 going on at Philip Morris in 1968?

19 A. No.

20 Q. The Ames Test came into being in 1972?

21 A. Well, the test came into being -- I think Philip Morris
22 started using it in '73, '4, '5, in that range before I got
23 there they had started it. It really wasn't fully adopted, I
24 think, until the time I got there, but there were other cell
25 level tests being done.

1 Q. Another document that you referred to in your direct
2 examination that you say supports the existence of the
3 gentleman's agreement is, I believe, it's on page 137 of your
4 direct.

5 MR. WEBB: Can I have tab 461, please.

6 BY MR. WEBB:

7 Q. And you're quoting -- can I go up a little bit further.
8 I think you're quoting from an R.J. Reynolds document. Do you
9 see that? The government asked you the question: "We have
10 shown U.S. Exhibit 21737 for review, have you seen this document
11 before." "Yes, this is the R J memo that refers to the
12 gentlemen's agreement." Do you recall this testimony?

13 A. Yes.

14 Q. And go on and you quote from a portion of this document;
15 is that correct?

16 A. That is correct.

17 Q. And you basically quote, I'll read on the page with the
18 Bates number ending 3504, the memo states that: "Throughout the
19 domestic industry, two gentleman's agreements were operative in
20 the early days." Now, when you read that -- this document is
21 dated in 1983; is that correct?

22 A. I don't recall the date exactly, but in that type of time
23 frame.

24 Q. I'll show you the actual document in a moment.

25 A. Okay.

1 Q. This document, would you agree, appears to be talking
2 about the gentleman's agreement as if it's something that was in
3 the past?

4 A. Well, it says what it says. It was operative in the --
5 yeah.

6 Q. Well, trying to be fair and objective, which I know you
7 were trying to do, when you read this document over and the
8 author of it, who you don't know anything about, and you had
9 nothing to do with the document, that -- the author says about
10 two gentlemen's agreement were operative, that means they were
11 ongoing, is that what that word means to you?

12 A. Yes.

13 Q. In the early days?

14 A. Okay.

15 Q. Did that tell you -- did that at least tell you that
16 whatever was going on according to this author did not appear to
17 be going on at the time of the date of this document?

18 A. Okay, but this -- I have to have the document to know the
19 date. You have to remember that at the time that I left -- I
20 mean, all I have are documents from '85 on, right, and I left
21 there in '84. So from a factual basis, all I can say is that in
22 1984, because of what Philip Morris would not do, at least what
23 they thought, my supervisors, my superiors, vice presidents,
24 both, said it was in effect. So, that -- if this document is a
25 1983 document, then I would have a hard time because of my

1 factual knowledge in saying that it stopped some time sooner
2 because I know in '84 it's still going on.

3 Q. Well, at least -- I'm just asking when you read this
4 gentleman's memo over, did you interpret those words that he was
5 at least communicating -- that whatever he thought and believed,
6 he said -- when he said it was in the early days, did you accept
7 that as true?

8 A. Well, I accepted that it was operative in the early days,
9 because that's what it says.

10 Q. Okay. Fine. He goes on to then, you quote:
11 "Throughout -- to any company discovering an innovation
12 permitting the fabrication of an essentially safe cigarette
13 would share the discovery with others in the industry, and no
14 domestic company could use intact animals in-house and buy
15 medical research."

16 MR. WEBB: Could we go down to the next line. Let's go
17 back to the document itself and put the whole document on the
18 screen, page 137. Go to the next page.

19 BY MR. WEBB:

20 Q. So that was all -- I just want the Court -- are you the
21 one -- go back to the previous -- are you the one who made the
22 choice to cutoff and not reveal what the next line in that
23 document was? Strike the question.

24 Who made the decision that that's the quote that you were
25 going to put in this document to prove your point about the

1 gentleman's agreement?

2 A. Can we see the document? Maybe I can recall.

3 Q. Did you prepare your testimony?

4 A. I did.

5 Q. Okay. So are you the one who made the decision?

6 A. I -- it's my testimony, so I selected the passages. I
7 could have added stuff if I wanted to, so the answer is yes.

8 Q. Okay. That's all I'm asking. Let me show you the
9 document.

10 MR. WEBB: Could I have tab 1613, which is government
11 Exhibit 21737.

12 BY MR. WEBB:

13 Q. That was the document that you -- I'll give you the --
14 would you like the document itself?

15 A. I have it. I'm just trying to find the page.

16 Q. Okay. And I think -- according to your testimony, the
17 Bates stamp number was 3504.

18 A. I found it.

19 Q. That's what you selected to put on the screen -- or in
20 your testimony; is that correct?

21 A. Yes.

22 Q. Now, if we go to what you chose not to put in your direct
23 examination, the next sentence of this document by the author
24 said: "We know the latter agreement, that's the in-house, has
25 been broken by at least two domestic companies and suspect the

1 former agreement would not be honored today."

2 I just would like to know if you could tell the Court,
3 why did you choose to exclude that when you chose to edit what
4 you put in your direct testimony to the Court?

5 A. Well it doesn't add anything to it. If the implication
6 is that the selection I made shows that it's not in effect
7 anymore, think that's what you're driving at, and I'm since --
8 at the time this thing is written, I know it is -- this is a
9 complaint that you'll see in a lot of the literature that this
10 document -- that this agreement continually gets broken and then
11 they -- people complain with each other, mainly through
12 attorneys and they go back and stop doing what they're doing.

13 Q. Doctor, you were -- in your testimony, you tell the Court
14 you're going to refer the Court to certain documents that you
15 believe support your testimony or position that this agreement
16 was in operation; is that correct?

17 A. Yes, yes, and that's what I think this does.

18 Q. This document is dated during the time that you were at
19 Philip Morris; is that correct?

20 A. That's my understanding.

21 Q. 1983; is that correct?

22 A. Yes, that's the timeframe of this. It says right on the
23 front page, March 1983.

24 Q. Did you think it would be important to the Court to know
25 that the author of the document actually believed that one of

1 the agreements was being broken and that the other would not be
2 honored?

3 MR. GOLDFARB: Objection, Your Honor. This is getting
4 argumentative and repetitive.

5 THE COURT: Overruled, but I do think you may have
6 misstated something.

7 Dr. Farone, do you know who authored this 1983 document?

8 THE WITNESS: Well, I only know them by their writings and
9 their rep -- I never met them personally.

10 THE COURT: I didn't mean it that way. Do you know who
11 wrote the 1983 document?

12 THE WITNESS: Yes, I know the -- it's prepared by Rodgman,
13 who's Alan Rodgman from documents. I've never met him, and
14 Mr. Colby, they're both RJR employees.

15 THE COURT: All right, then. Let me look at the question
16 again.

17 MR. WEBB: I'm sorry, go on, Your Honor.

18 THE COURT: All right. The question may stand. Do you
19 want me to read it back?

20 MR. WEBB: Could you?

21 THE COURT: "Did you think it would be important to the
22 Court to know that the author of the document actually believed
23 that one of the agreements was being broken and the other would
24 not be honored?"

25 THE WITNESS: Well, I -- my answer to that is that I don't

1 think the fact that they're broken periodically means that they
2 don't exist, and he suspects that the former would not be
3 honored. It doesn't say that they're not going to honor it, and
4 so the fact that he suspected -- I mean we can put the whole
5 document in actually and you can read the whole page about how
6 they believe Philip Morris is violating it, but it goes to, in my
7 opinion, showing that, in fact, their concern about maintaining
8 this agreement as opposed that it no longer exists.

9 BY MR. WEBB:

10 Q. Okay. Well let's go to the next page, then. And the
11 next page shows that there's a belief that Philip Morris is not
12 following the agreement; is that correct?

13 A. That is correct. There is a belief, but as you will see,
14 some of this is incorrect in what they believed, and so when
15 they find out that it's okay -- but anyway.

16 Q. Let's make sure. R.J. Reynolds, Philip Morris's
17 competitor, at least believes that Philip Morris is doing a lot
18 of biological research; is that correct?

19 A. That is correct.

20 Q. And that was, by the way -- this document's now 21 years
21 ago?

22 A. Yes.

23 Q. By the way, the document is authored by Mr. Rodgman and
24 Mr. Colby; is that correct?

25 A. That is correct.

1 Q. What are their positions at Reynolds as far as their --
2 what are their positions at Reynolds?

3 A. They were senior positions, at various times directors,
4 vice presidents in the research and development area.

5 Q. You would believe them, or assume them as you looked at
6 those documents, as people who were very knowledgeable about
7 research and development in the industry; is that fair to say?

8 A. Yes.

9 Q. Now -- so we can clarify one thing that -- whatever these
10 agreements were that you say existed, the one thing we know,
11 that there was certainly no agreement by Philip Morris while you
12 were there not to actually work on and develop safer cigarettes,
13 was there?

14 A. No, that's correct. You could work on it and you could
15 develop the technology without a problem, and you could
16 actually, under certain circumstances, market the product,
17 because otherwise why would you even be doing it, why would I
18 even be doing that research. You just can't show data compared
19 to the other guy's product and say that, you know, our product
20 is less hazardous than a Winston or something like that. So, I
21 don't find many inconsistencies but --

22 Q. Okay. And I'm not going back through it, but you do
23 agree, do you not, that whatever you say these agreements were
24 during the time you were at Philip Morris personally involved in
25 the industry, you were aware that not only Philip Morris, but

1 R.J. Reynolds, Liggett, Lorillard and Brown & Williamson, all of
2 them were developing safer cigarette products; is that correct?

3 A. Yes.

4 Q. Thank you. Let's talk about what biological research
5 Philip Morris actually did do so the Court has an understanding
6 of what research was done.

7 The fact is, while you were at Philip Morris, Philip
8 Morris did a lot of biological research; is that fair to say?

9 A. That is correct.

10 Q. And Philip Morris did biological research at different
11 locations; is that also correct?

12 A. You mean -- by "other location" contracted research as
13 opposed to --

14 Q. I'll come to that, but -- let's start with Richmond. Did
15 Philip Morris do biological research at its main headquarters in
16 Richmond, Virginia?

17 A. Only invitro, cell level, yes.

18 Q. Talk about. That invitro cell level is biological
19 testing; is that correct?

20 A. It is, um-hmm.

21 Q. Explain to the Court, in general terms, what is invitro
22 biological testing?

23 A. Well, rather than use whole animals one uses either
24 bacterial cells or human cells or cells of other types, hamster
25 cells, mammalian cells, and one looks at the effects of the

1 chemicals on those cells.

2 Q. Those tests, essentially, show what you've told the Court
3 this morning, what you said was a very important test, which is
4 whether or not cells mutate or change in the presence of
5 components of cigarette smoke; is that correct?

6 A. That is correct, which is an indicator of potential
7 carcinogenicity.

8 Q. And you agree that it was very important for Philip
9 Morris to do that type of biological testing; is that correct?

10 A. I do, and I did.

11 Q. And you used that kind of testing, actually, in a lot of
12 the work you did; is that correct?

13 A. It's necessary, so yes.

14 Q. Although the biological testing done at Philip Morris was
15 not done within your directorate?

16 A. That is correct.

17 Q. You were not responsible for biological testing?

18 A. That is correct.

19 Q. Okay. But the test results that Philip Morris did do,
20 the biological testing at Richmond, they are available in the
21 library files at Philip Morris; is that correct?

22 A. Yes, the testing done on things like blend design and
23 dilution levels we were talking about, yes.

24 Q. In fact, you've seen, when you reviewed all these
25 thousands of documents produced in litigation, you've seen

1 Philip Morris's biological research results being produced in
2 the litigation; is that correct?

3 A. That is correct, and none of them relate to marketed
4 products.

5 Q. Well, let's go on. What about INBIFO, did Philip Morris
6 do work at a laboratory called INBIFO?

7 A. Yes, they did.

8 Q. Let's tell the Court what INBIFO was.

9 A. INBIFO was a laboratory that did various types of
10 biological testing. It's located in Cologne, Germany.

11 Q. Philip Morris owns the INBIFO laboratory in Cologne,
12 Germany; is that correct?

13 A. Yes, I mean they -- they don't own -- I don't know
14 whether they still own it or not, but, yes at one point or not
15 they owned it.

16 Q. That's fair. During the time that you were at Philip
17 Morris, you -- Philip Morris owned the INBIFO laboratory in
18 Cologne Germany; is that correct?

19 A. They did, but I didn't know that.

20 Q. Well, when you say you didn't know about it, are you
21 suggesting that it was some kind of secret?

22 A. No, I didn't know they owned it. I'm not saying that the
23 ownership was secret, I'm saying I thought it was an outside
24 contractor lab, because that's how I was familiar with Hazelton
25 and all of these outside contract labs.

1 Q. It happened to be you were not at Philip Morris when the
2 INBIFO laboratory was purchased by Philip Morris in the 1970s;
3 is that correct.

4 A. That is correct.

5 Q. But you've seen evidence that when Philip Morris
6 purchased INBIFO, it was no secret, Philip Morris sent a memo
7 around the R & D Department telling everybody they had purchased
8 INBIFO; is that correct?

9 A. That is correct. I'm not saying it was a secret, I'm
10 just saying I didn't know while I was there.

11 Q. That's fine, but you knew a lot of biological testing was
12 being done at INBIFO?

13 A. Absolutely.

14 Q. And Philip Morris did a lot of animal biological testing
15 at INBIFO in Cologne, Germany; is that correct?

16 A. Yes.

17 Q. Philip Morris did mouse skin painting tests in INBIFO; is
18 that correct?

19 A. Yes.

20 Q. Philip Morris did these animal inhalation studies that
21 we've talked about; is that correct?

22 A. That is correct.

23 Q. Philip Morris also at Cologne did invitro and in vivo
24 assays; is that correct?

25 A. Yes.

1 Q. And INBIFO is an acronym for what's known as the
2 Institute for Biological Research; is that correct?

3 A. Yes, the German words therefor.

4 Q. So the Court understands, that laboratory is well known
5 in the scientific world, and you believe it is well qualified to
6 do research laboratory work; is that correct?

7 A. That's correct.

8 Q. In fact, am I correct, before Philip Morris purchased
9 this lab, INBIFO did biological testing for a number of American
10 companies; is that correct?

11 A. Yes, I mean I think there's -- some of the early animal
12 work was done at Hazelton, for example.

13 Q. And by the way, owning laboratories in Europe by an
14 American company, there's nothing unusual about that, is there?
15 Lever Brothers, that you worked, own a laboratory in Europe?

16 A. Lever Brothers is a British company, so, yes they did.

17 Q. Is Lever Brothers also here in the U.S.?

18 A. Well, that's a subsidiary, it's owned totally by
19 Unilever, which is a British company so the main labs are there.
20 We had toxicology labs in both places.

21 Q. Do you agree with me that as far as what INBIFO was
22 doing, those scientists at INBIFO, in your opinion, were
23 specialist in this -- strike the question.

24 This one kind of study we've talked about, and I'm not
25 going to go into a lot of detail, but these inhalation studies

1 where you get animals to ingest smoke, they are difficult to set
2 up and carry out; is that fair to say?

3 A. Well, I mean you have to -- yes, all animal testing is
4 difficult. You have to have a specialized facility to do it and
5 INBIFO is one of the few places that did it. Places in the
6 United States did it also.

7 Q. Okay. But that's my point.

8 THE COURT: Is it fair to say that that laboratory was not
9 subject to whatever animal protection statutory regulation
10 existed in the United States at that time, was it?

11 THE WITNESS: That's correct.

12 BY MR. WEBB:

13 Q. Although actually, Doctor, you became aware that the FDA
14 visited that laboratory facility; is that correct?

15 A. Well that's -- yes, they do work that is claimed to be
16 GLP, which is an acronym for good laboratory practice, which for
17 making drugs and pharmaceuticals when they are tested, you must
18 do, so under that -- but that's only limited to the tests that
19 are done for the specific drugs. So if I, for example, were to
20 make aspirin or an analog and I have to send it someplace to get
21 it tested, that laboratory has to comply with certain FDA
22 practices, and they have qualified for that in certain of the
23 tests that they've done.

24 Q. Okay. So -- just so -- this GLP requirement, what does
25 GLP stand for?

1 A. Good laboratory practice.

2 Q. Okay. And I'm not an expert on that, so I'll just follow
3 up in light of the Court's question.

4 When the FDA went to visit -- strike that.

5 Was it your understanding that when the FDA visited the
6 INBIFO lab, they found everything to be in order and it was
7 operating as a lab should operate under GLP criteria?

8 A. Well, as far as I know there was no censor or letter
9 written saying that they weren't, but that's -- in the history
10 of the FDA, I think there are a very small number of labs, and
11 usually what you do is get a corrective letter where they tell
12 you you need to improve certain things that you're doing, but
13 almost any lab can become GLP under the -- if you follow the
14 guidelines either of the EPA or the FDA.

15 Q. But do I understand it, when the FDA visited the lab in
16 INBIFO they were going to see if it was carrying out its
17 practices according to the criteria of general laboratory good
18 practices?

19 A. Yes, but only for those chemicals, or those projects
20 which were under FDA jurisdiction. You can have a laboratory
21 where you do both GLP and non-GLP work, so that's --

22 Q. In any event, you believed that the scientists at INBIFO
23 were very specialized in doing these inhalation studies; is that
24 correct?

25 A. Yes.

1 Q. I think you just told me it was one of the few places in
2 the world that really has the facilities and the scientists to
3 carry out this type of work?

4 A. I think there's only about 25, something like that.

5 Q. Do I understand you actually have to have almost
6 veterinarian scientists to carry out these studies?

7 A. You have to have a vet any time you use these animals as
8 we did at Philip Morris.

9 Q. Now, in addition to the biological research that Philip
10 Morris did at Richmond and at INBIFO, in the United States, did
11 Philip Morris also do biological research with outside
12 independent contract labs that were skilled in doing biological
13 research?

14 A. Yes.

15 Q. That's a fairly common thing for companies to do in the
16 United States; is that correct?

17 A. Very common. They have an outside company check your
18 inside work, yes.

19 Q. In fact, am I correct, you believe that it's a good thing
20 for companies to do that because it increases the credibility
21 because you have someone independent from the company doing the
22 research?

23 A. That's correct.

24 Q. And, for example, one of the outside contract labs that
25 Philip Morris used to do biological research was a very well

1 known lab called the Hazelton Laboratories; is that correct?

2 A. That is correct.

3 Q. It's a very well known and a very well respected
4 laboratory; is that correct?

5 A. Yes.

6 Q. You use the same laboratory when you were at Lever
7 Brothers?

8 A. That's correct.

9 Q. And Hazelton Laboratory did a fair amount of biological
10 research for Philip Morris; is that correct?

11 A. Yes.

12 Q. Let me go to a related subject, since I'm on INBIFO.

13 THE COURT: About how long will you be on that one?

14 MR. WEBB: Oh, 20, 30 minutes. I can stop now. It's a
15 new topic.

16 THE COURT: All right. I think we'll take a lunch recess.

17 Mr. Webb, how long do you think you're going to be with this
18 witness? Are you going to go through next week?

19 MR. WEBB: I'm probably going -- yes, realistically
20 looking at what I have left. I'm trying to move from one topic
21 as quickly as I can, but he covered everything under the sun
22 regarding to Philip Morris. I probably won't finish today is
23 what I'm looking at here, but I'll do my best.

24 THE COURT: Do you think for sure you'll finish on
25 Monday -- not Monday, Tuesday?

1 MR. WEBB: Oh, yes, yes.

2 THE COURT: And then there'll be some redirect?

3 MR. WEBB: Yes.

4 MR. GOLDFARB: Your Honor, might we also get a sense from
5 the other defendants as to how long they expect to take with
6 Dr. Farone?

7 THE COURT: Right. I didn't think of that.

8 MR. NEWBOLD: I have about an hour.

9 MR. BIERSTEKER: I think mine is much less than that.

10 MR. MARKS: About 15 minutes for me, Your Honor.

11 MR. BERNICK: Nothing from us so far, Your Honor.

12 THE COURT: All right, Dr. Farone, thank you. You may
13 step down. Quarter of 2:00, everybody.

14 (Thereupon, a luncheon break was had.)

15

16 C E R T I F I C A T E

17

18 I, Scott L. Wallace, RDR-CRR, certify that the
19 foregoing is a correct transcript from the record of proceedings
in the above-entitled matter.

19

20 -----
21 Scott L. Wallace, RDR, CRR
22 Official Court Reporter

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1 I N D E X

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3 Examinations Page

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5 CONTINUED CROSS-EXAMINATION OF WILLIAM A. FARONE, Ph.D. 1811
6 BY MR. WEBB

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8 E X H I B I T S

9 Description Page

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UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA,	:	CA No. 99-2496 (GSK)
	:	October 7, 2004
Plaintiff,	:	
	:	1:45 p.m.
	:	
v.	:	Washington, D.C.
	:	
PHILIP MORRIS USA, et al.,	:	
	:	
Defendants.	:	
.	:	

VOLUME 10
AFTERNOON SESSION
TRANSCRIPT OF TRIAL RECORD
BEFORE THE HONORABLE GLADYS KESSLER
UNITED STATES DISTRICT JUDGE

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

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

2 (Recess ended at 1:46 p.m.)

3 THE COURT: Mr. Webb, please. I don't know how
4 everybody could manage to come in. It's such a good day
5 outside. Here we are.

6 MR. WEBB: Can we leave?

7 WILLIAM A. FARONE, Ph.D., Government's witness, RESUMES

8 CROSS-EXAMINATION (Cont'd.)

9 BY MR. WEBB:

10 Q. Dr. Farone, let me pick up where we left off on the, for a
11 luncheon recess.

12 I told you I had another INBIFO-related issue I wanted
13 to talk to you about. In your direct examination you provide
14 the court some testimony about Tom Osdene and INBIFO documents;
15 is that correct.

16 A. Yes.

17 Q. Now, let me get some background to the court.

18 Within Philip Morris's Research and Development
19 Department, am I correct you were not -- it was not your
20 Directorate that dealt with INBIFO, it was Dr. Osdene; is that
21 correct.

22 A. That is correct.

23 Q. And, in fact, if I understand your past testimony you never,
24 during the time you worked at Philip Morris, you never visited
25 INBIFO, you were never physically in INBIFO in Cologne, Germany;

1 is that correct?

2 A. Correct. I was not allowed to, yes.

3 Q. You did some time see INBIFO research while you were at
4 Philip Morris; is that correct?

5 A. Yes, some of it.

6 Q. And while you were at Philip Morris, is it correct that you
7 had no way to know of the recordkeeping policies of the people
8 at INBIFO who were performing this biological research; is that
9 correct?

10 A. On our -- on -- we had the general knowledge of their GLP
11 status from before the time I went to Philip Morris which
12 carries with it some recordkeeping policies.

13 I think you mean maybe with regard to Philip Morris's
14 products?

15 Q. That's a fair point. We talked about GLP a bit this
16 morning. Do you recall that?

17 A. Yes.

18 Q. And as I understand -- I'll ask the question.

19 Do I understand it that based on the GLP certification
20 it's your belief that FDA inspectors have gone to INBIFO and
21 were satisfied with the quality of the data that had been
22 prepared; is that correct?

23 A. Well, for those -- yes, for those projects which are covered
24 by FDA, GLP guidelines, yes.

25 Q. Well, let me just make sure that this is your testimony.

1 Can I have tab 1441, which is Dr. Farone's Allen trial
2 testimony, February 5, 2003, the PM session. This question was
3 asked:

4 "Do you know whether or not INBIFO has been certified
5 as a good laboratory practices laboratory in the United States
6 under those circumstances.

7 "Answer: It's self-certification. I know that the
8 food and drug inspectors have gone to INBIFO and been satisfied
9 with the quality of data that they have prepared."

10 MR. GOLDFARB: Your Honor, just before the witness
11 answers the question, continues to lead, if we could be sure he
12 gets a copy of the testimony, please.

13 MR. WEBB: Yes.

14 BY MR. WEBB:

15 Q. Doctor, let me hand you your deposition -- or this trial
16 testimony, actually, and give you a chance to find the page
17 we're on before I ask you any questions about this testimony.
18 This is on page 72, the one I have up on the screen.

19 A. Okay.

20 Q. And when you were asked this question and you gave that
21 answer, I take it that was a truthful answer?

22 A. Well, the circumstances, however.

23 Q. Could you tell me whether it's a truthful answer or not?

24 A. That answer is truthful.

25 Q. Okay. You can explain. Go ahead and explain your answer.

1 A. The circumstances we're talking about is submitting data to
2 the Food and Drug Administration in the United States, not with
3 regard to the information being kept for Philip Morris.

4 Q. Okay. Then let me ask you this question, Doctor.

5 Am I correct when you were at Philip Morris you never
6 knew exactly what records of biological test results were
7 actually maintained at INBIFO; is that correct?

8 A. That is correct.

9 Q. And is it correct that at the time you were at Philip Morris
10 you don't have any personal knowledge one way or the other as to
11 whether INBIFO kept -- whether INBIFO kept on file a copy of
12 each and every test that was performed at INBIFO; is that
13 correct?

14 A. That is correct.

15 Q. And is it correct, Doctor, that you have no information that
16 anyone at INBIFO ever destroyed any INBIFO documents? Is that
17 correct?

18 A. Well, I wasn't there. I never saw anyone do it. There is
19 some information which I have that says that they may have, but
20 I wasn't there, so I can't certify that in any way.

21 Q. Let me see if this is your testimony.

22 Can I have tab 1443, which is Dr. Farone's Williams
23 trial testimony, PM session, March 5, 1999. The question was
24 asked:

25 "All right."

1 This isn't the right -- this is not the right quote.

2 Is this 1443?

3 MR. GOLDFARB: Again, Your Honor, if counsel is going
4 to show Dr. Farone a trial transcript, we ask that it be
5 provided to him.

6 MR. WEBB: I will do that. And I actually have the
7 wrong quote on the screen.

8 Just one second, Your Honor.

9 (Pause)

10 BY MR. WEBB:

11 Q. Doctor, I need to give you this transcript so you have the
12 actual transcript. This is from the Williams' Case. Do you
13 recall that case?

14 A. Yes, I do.

15 Q. And the page I have on the screen is page 94. I'll give you
16 a chance to get yours acclimated to that.

17 (Pause)

18 A. Okay.

19 Q. And the question that was asked of you at that time:

20 "Isn't it true, Dr. Farone, that you have no
21 information that the people at INBIFO destroyed a single
22 document; right?"

23 And your answer was, "That's right. That's correct."

24 When you gave that answer, was that a truthful answer?

25 A. It was a truthful answer and it is in response to a series

1 of questions that talks about INBIFO documents that I knew were
2 available, but I hadn't found when I was searching the Internet.

3 So it's not -- it's not -- it's taken out of context.
4 That's not true for -- I mean, what the implication of my
5 testimony is that I knew there were certain documents. I went
6 looking for them and I found -- I didn't find those documents.
7 So that's some evidence.

8 And then I don't have any direct information because,
9 other than Tom Osdene's direction to them about document
10 destruction, I don't know that any of the people at INBIFO
11 destroyed a single document. So this is truthful, but it's
12 limited to that context.

13 Q. Okay. Well, first of all, it's a truthful answer so let's
14 start with that.

15 A. Yeah. To that question, yes.

16 Q. Okay. And now as far as INBIFO documents and what you've
17 looked at, as I understand -- strike the question.

18 In doing all the expert work that you've done in this
19 case, you have discovered, I believe, based on what I've seen in
20 your prior testimony, that there's actually about 208,000 INBIFO
21 documents that Philip Morris has produced in discovery and
22 appears on their Internet, on the Web site; is that correct?

23 A. I believe that's correct, approximately that number.

24 Q. And of that 208,000, I believe you've testified in the past
25 that you think you read approximately 3,000 of those documents?

1 A. Correct.

2 Q. So, you haven't read the other 205,000 documents; is that
3 correct?

4 A. That is true, but of course that number -- you used 1600
5 people to determine the -- like a CNN poll or an ABC poll, to
6 determine what the opinion of the country is of 280 million
7 people. That's statistical.

8 And I think I've testified before that I tried to do
9 some random sampling, select things randomly, to validate that
10 the number I'm looking at is a representative and fair number of
11 the total population of documents.

12 So, if 1600 is representative of 280 million, I think
13 I've gone overboard with 3,000 being representative of 208,000.

14 Q. Well, does that still mean that there's 205,000 that you
15 have not read?

16 A. That certainly means that.

17 Q. Thank you.

18 Q. As far as Dr. Osdene and INBIFO documents, you've testified
19 in your direct examination that he maintained certain Philip
20 Morris research documents he kept for himself by keeping them in
21 a personal safe at his house. Is that correct?

22 A. That is correct.

23 Q. In fact, let's show the court that testimony. Can I have
24 tab 627, please, which would be your direct examination from
25 page 149 of your direct examination.

1 "Question: Do you know how Dr. Osdene maintained the
2 documents he kept for himself?

3 "Answer: He kept them in a personal safe in his house.

4 "Question: How do you know this?

5 "Answer: He showed me. We were friendly."

6 You can read the rest of your answer, but my question
7 is just tell us approximately -- approximately, to the best of
8 your recollection, when were you in Dr. Osdene's house when he
9 showed you the PM research documents that he had kept in a safe
10 at his house?

11 A. Well, I was never in Dr. Osdene's house, as you well know.
12 I was in his office when he showed me the document and explained
13 why I couldn't have a copy and that it was kept in safe at his
14 house.

15 Q. Let's make sure it's clear, because this -- this is the way
16 you chose to draft your testimony for the court. Is that
17 correct?

18 A. He showed me the document. We were friendly. And he wasn't
19 supposed to show me the document, as he told me. And he said
20 that, okay, because he wanted me to see the answer to this
21 particular question, it had to do with the reduction in toxicity
22 of the RL made from the denitrification process in Marlboro. As
23 I understood it we weren't supposed tobacco testing Marlboro's
24 and yet he had a sheet from INBIFO that says Marlboro, Marlboro
25 with RL and there were three different types of RL on there.

1 So he went on, I'm not supposed to show you this, I get
2 these at home and he went on to explain the system which I was
3 already aware of. So that's how he showed me the document and
4 told me about the safe.

5 Q. I just want to make sure. You're the one that chose to
6 draft it this way for the court, the way I have it on the
7 screen; is that right?

8 A. Well, I did not object to it, yes. I mean, that's words
9 that I've used before. So yes, I selected the answer to that.

10 Q. Maybe I should make sure I understand.

11 When you say you did not object to it, did somebody
12 else draft this for you and then you read it over to see if it
13 was accurate?

14 A. Well, I did not answer every specific question here that had
15 been answered in other cases.

16 What I did was to answer questions I was asked and to
17 provide testimony from previous testimony exactly as it was
18 written, because I had gone through that before. So this is, I
19 believe, exactly out of my previous testimony, so I don't have
20 an objection to it.

21 Q. Can you answer my question?

22 When you just told the court a moment ago that you did
23 not object to this, I want to make sure I understand. Are you
24 telling me that somebody else prepared your testimony and you
25 read it over to see if you objected to it?

1 A. I did not type this document.

2 Q. Who actually prepared the written document that's been filed
3 here as your direct testimony?

4 A. The Department of Justice -- the government.

5 Q. And so some government lawyer typed up your direct
6 examination this way and you did not object to it. Is that
7 fair?

8 A. Well, I don't know that a lawyer actually typed it. But I
9 did not object to this because it's testimony that I've given
10 before and I recommend it to the various lawyers that I've
11 talked to where to find the answers to these questions to save
12 me the time of having to de novo go through and answer them all
13 again.

14 Q. So I don't want to nitpick here, but when you were asked the
15 question, "Do you know how Dr. Osdene maintained the documents
16 he kept for himself," and you told the court, "Yes, he kept them
17 in a personal safe in his house."

18 When you get asked the question, how do you know this,
19 you interpret that to mean how do you know that he kept them in
20 a personal safe in his house, and the answer is, "He showed me.
21 We were friendly." Do you think that was communicating to the
22 reader that he showed me the documents in his safe?

23 A. Well, okay. My -- you can. I mean, I read it in terms of
24 talking about how Dr. Osdene maintained the documents he kept
25 for himself. How do you know about how he maintained the

1 documents he kept for himself.

2 So it's a continuation of the thought. You know, I
3 would be the first to admit that I'm a scientist and not a
4 semanticist.

5 So you could read it that way, but that's not what --
6 doesn't say it, that I was at his house. I've never been in his
7 house.

8 Q. I guess that's clear. You have never been in Dr. Osdene's
9 house?

10 A. As I have testified on many occasions.

11 Q. And he never showed you any documents in his house in a
12 safe?

13 A. He showed me the documents, but not in his house in a safe.
14 He showed them to me at work.

15 Q. So I want to make sure I have an answer to my question.

16 You were never in Dr. Osdene's house and saw documents
17 in his safe; is that correct?

18 A. That's correct.

19 MR. GOLDFARB: Objection, Your Honor, asked and
20 answered.

21 THE COURT: The objection is overruled and the witness
22 has answered.

23 BY MR. WEBB:

24 Q. Now, you refer in your direct examination to certain notes
25 that Dr. Osdene prepared. Can I have U.S. Exhibit 34424 called

1 up on the screen, please?

2 These are some handwritten notes that you've identified
3 as belonging to Dr. Osdene; is that correct?

4 A. That is correct.

5 Q. And am I correct, you've testified that what Dr. Osdene says
6 in these notes, these handwritten notes, actually represents an
7 official policy of Philip Morris; is that correct?

8 A. I've testified that -- yes, what was in these notes is what
9 I was told by both Dr. Osdene, Dr. Seligman and others was the
10 policy of Philip Morris, complete with diagrams on how the stuff
11 should be routed and all of that, yes.

12 Q. Doctor, in fairness, do you -- at least based on your
13 experience in business at Lever Brothers and other places, does
14 this document written in handwriting by Dr. Osdene, at least on
15 its face, would it normally communicate to you that that's some
16 official policy of Philip Morris USA as a company?

17 MR. GOLDFARB: Objection, Your Honor, mischaracterizes
18 the witness's testimony.

19 THE COURT: What?

20 MR. GOLDFARB: It mischaracterizes the witness's
21 testimony.

22 THE COURT: No. The objection is overruled.

23 A. Could you go back to the question? We're talking about
24 consistency with policy. This isn't a policy document if that's
25 the question. This is not the policy document because these

1 policies were verbally communicated.

2 There's no written policy, obviously, for legal reasons
3 as directed by Philip Morris' attorneys. However, in the
4 position that I had, I had to be aware of what the policy was,
5 and this document is consistent with that policy which is all
6 I've ever said. I'm not saying that this document represents a
7 policy document.

8 Q. I want to make sure I understand what you just told the
9 court.

10 Philip Morris' lawyers told Philip Morris not to put
11 its INBIFO policy on document retention in a memo?

12 A. Pardon? I don't understand.

13 Philip Morris' lawyers told them not to discuss what
14 was going on with regard to stuff shipped to INBIFO. We were
15 not supposed to acknowledge the link between Philip Morris USA
16 and the work done at INBIFO.

17 Q. So then if I understand your testimony, what Dr. Osdene has
18 written down on this document -- actually, let me just show you
19 your direct examination. There is your direct examination at
20 page 150 over to page 151. It's tab 631 and 632.

21 Okay. I think I've now had it put on the screen. This
22 is your direct examination that you provided to the court; is
23 that correct?

24 A. Yes.

25 Q. So the question was: Was this -- we were referring to this,

1 you're talking about, I should -- can we scroll up a little bit?

2 You're talking about this Osdene document; is that
3 correct?

4 A. Let me see what we're talking about here. What is the
5 question? I guess I'm having trouble seeing the "this" we're
6 referring to.

7 Q. You actually have your full testimony there.

8 A. I do. I'm looking for the "this" so I can make sure that I
9 answer.

10 Q. I want you to do that. Why don't you pick up your full
11 testimony so we don't take anything out of context.

12 A. I'm still having trouble finding the "this."

13 Q. Okay. The document I have on the screen, Doctor, if you go
14 back to page 149. Are you on page 149 of your testimony?

15 A. I do.

16 Q. Could we call that up?

17 If we start with -- this line of questioning starts
18 with on line 13, do you see, "Looking at U.S. Exhibit 34424, is
19 this a document you've seen before?" And you said, "Yes, many
20 times."

21 Do you see that?

22 A. Yes.

23 Q. That starts a series of questions about the Osdene document
24 that we just had on the screen for the court; is that correct?

25 A. Yeah. And that question, the "this" refers to the document

1 I've seen before. Okay.

2 Q. Just bear with me.

3 And you're asked a series of questions about whether
4 that's Dr. Osden's handwriting and then you read off the
5 document into the record for the court; is that correct?

6 A. That is correct.

7 Q. On page 149 at the bottom, and at the top of the next page,
8 150, you're reading off to the court what Dr. Osdene had in that
9 handwritten notes that we just looked at; is that correct?

10 A. That is correct.

11 Q. And, for example, you're then asked a couple of clarifying
12 questions about that -- about the handwritten notes; is that
13 correct?

14 A. Yes, it is.

15 Q. Who is Rylander? Do you see that?

16 A. Yes.

17 Q. And then so there's a few questions about clarifying issues
18 of what that note means. Is that fair to say?

19 A. That's fair.

20 Q. And then the question on number 19, "Are the references in
21 items 2, 3, and 6" -- that's referring to the Osdene document;
22 is that correct?

23 A. Yes.

24 Q. "Keeping documents in Cologne, and destroying important
25 documents sent to Osdene -- is that consistent with your

1 recollection of Dr. Osdene's approach to document management at
2 Philip Morris," and you answered "Yes." Do you see that?

3 A. Yes.

4 Q. Next question, "Was this just a personal thing Osdene
5 thought of and" -- you're referring to his notes; is that
6 correct?

7 A. Referring to the -- well, the question I was asked, but
8 that's not my wording. Somebody's asking me was this -- and I
9 took that to mean the policy.

10 Was the policy just a personal thing Osdene thought of
11 and implemented on his own, or the directions to do this? So
12 that's how I interpreted them.

13 Q. "Interpreted" meaning that you were being asked to explain
14 whether what Osdene wrote in his note about destroying
15 documents, whether that was simply a personal thing with Osdene,
16 thought of and implemented on his own?

17 A. That's correct.

18 Q. Okay. And your answer was, "No, not at all." On the next
19 page. "No, not at all. The communications and distribution
20 policy relating to information between Philip Morris and INBIFO
21 was official policy." Do you see that?

22 A. Yes.

23 Q. So I want to just make sure, I'm clarifying it for the
24 court. What you're telling us is that -- can I have
25 Dr. Osdene's document brought back up, please? That's 34424.

1 If I understand what you're telling the court, the
2 things that Dr. Osdene said in this document -- for example,
3 let's take number 3, "Okay to phone and Telex." Do you see that
4 number 3?

5 A. Yes.

6 Q. "Okay to phone and Telex." Do you know what a Telex is;
7 right?

8 A. Yes.

9 Q. Okay. "These will be destroyed." That's what you say
10 Dr. Osdene said that these handwritten notes?

11 A. That's correct.

12 Q. Referring to Telex's and phone messages from INBIFO; is that
13 correct?

14 A. To some, not all. The ones that related to specific
15 projects that were to be restricted.

16 Q. These will be destroyed?

17 A. That's correct.

18 Q. Do you believe that Philip Morris -- are you communicating
19 to the court that Philip Morris had an official company policy
20 that Telexes between INBIFO and Philip Morris should be
21 destroyed?

22 A. Not all Telexes, only the ones related to the projects that
23 we weren't supposed to be doing or we didn't want people to have
24 access to. There's plenty of Telexes.

25 What we're talking about here are documents related to

1 the testing, the biological testing of Marlboro, Marlboro
2 Lights, Merit branded products, specific documents. This isn't
3 a general policy covering all work done at INBIFO. There's lots
4 of communications, reports going back and forth.

5 Q. Where does that say that in the Osdene memo here, just so I
6 know?

7 A. Go back. It doesn't tell you which document. It says,
8 "Ship all documents." Which documents are we talking about?

9 Q. I'm sorry, number 3, "OK to phone and Telex, these will be
10 destroyed." Where does it say in there that only certain
11 Telexes, whether Osdene only wants certain Telexes destroyed or
12 all of them destroyed?

13 A. Doesn't say that.

14 Q. It doesn't say that?

15 A. No.

16 Q. Then you've seen no Philip Morris documents that makes it
17 any type of policy of Philip Morris to destroy Telexes, for
18 example; is that correct?

19 A. All Telexes? No, I haven't seen a policy that says that.

20 Q. Because, Doctor, when you looked at some of those 208,000
21 Philip Morris INBIFO documents that are on the Web site, and
22 that have been produced in litigation, you see a lot of Telexes
23 between Philip Morris and INBIFO; is that correct?

24 A. That is correct, there are Telexes there. There is no Telex
25 that I have seen that describes the kind of information that

1 Dr. Osdene and this policy relates to.

2 Q. I just want the court to understand. I'll walk through some
3 of these if we need to.

4 Do you agree that you've seen a lot of Telexes between
5 Dr. Osdene himself and INBIFO about inhalation studies and other
6 biological testing?

7 A. Yes.

8 Q. And you've seen, for example, Telexes between Philip Morris
9 and INBIFO about mouse skin screening tests; is that correct?

10 A. Yes, I have.

11 Q. And you've seen -- in fact, you've seen a large number of
12 Philip Morris' Telexes between INBIFO and Philip Morris about
13 the biological research being done at INBIFO; is that correct?

14 A. That is correct.

15 Q. Now, on this same subject matter of suppressing or
16 destroying evidence, you also on direct examination, you talk
17 about Philip Morris having a policy to never let the outside
18 world know about its animal research. Do you recall that
19 testimony?

20 A. On its products of Merit, yes. I recall that testimony.

21 Q. Let's look at -- let's show the court -- could I please have
22 tab 634 which will be your direct examination from page 153. If
23 you want to look in your actual full script there, Doctor.

24 These are your answers; is that correct?

25 You started with, "Why did Philip Morris not want the

1 outside world to know if it was supporting animal research?"

2 The answer is, "Because the lawyers and executives
3 believed that it would constitute an admission that there was
4 something in cigarettes that was harmful. That is what I was
5 told by many persons including both of my superiors,
6 Dr. Seligman and Dr. Hausermann while I was there."

7 "Question: Did this restriction limit Philip Morris's
8 communications with the independent scientific community about
9 the properties of its products?

10 "Answer: Yes.

11 "Question: To your knowledge, how did this restriction
12 compare with restrictions that may exist in other industries?

13 "Answer: Philip Morris's policy went far beyond that
14 of other companies that I've been involved in, where the
15 restrictions are mainly for intellectual property reasons.

16 "Question: Were you personally involved in any
17 instances that reflected the awareness of this policy among
18 scientists?

19 "Answer: Yes. In the early 1980s, Victor DeNoble was
20 doing some rat research related to nicotine's effects, and
21 wanted to present the results at a scientific meeting."

22 Can we go on down?

23 "But I thought you said --" Let me just stop there. I
24 just want to make sure.

25 When you talk about that Philip Morris had this policy

1 to not let the outside world know about animal research, you
2 chose to use Victor DeNoble and his rat research as your example
3 because, according to you, in the early 1980s Victor DeNoble was
4 not allowed to make a presentation at a scientific meeting. Is
5 that correct?

6 A. I think you're mischaracterizing this.

7 Could we go back to the top of page 153 where we could
8 put this in context?

9 Q. I will do that. I'm going to let you explain an answer. I
10 want to at least stick with my question until I get an answer.

11 At least -- when you have set forth this policy of
12 Philip Morris not wanting the outside world to know about its
13 animal research, are you the one that chose Victor DeNoble as
14 the example in connection with his rat research?

15 A. I chose that example, but there's better ones, there are
16 additional ones. But you have to understand what we're talking
17 about to understand what example of what.

18 Q. Go ahead.

19 A. Okay. If you look at the top, the very top of page 153,
20 what we're talking about, "could not present research that could
21 suggest that smoking was biologically harmful." We're talking
22 about the harm due to smoking here.

23 So, I haven't seen a document that's an official
24 presentation of Philip Morris up until the year 2000 that
25 admitted that smoking was biologically harmful.

1 So everything in this is consistent with the policy of
2 Philip Morris of not admitting that there's is nothing
3 biologically harmful in cigarette smoke up to 2000, or
4 addictive, which is Victor DeNoble's, which would also be
5 considered a form of harm. So this is what this is all about.
6 It is disclosing the biological harmfulness.

7 Q. Well, because, I just -- if I look at the testimony that you
8 filed with the court, which I have on the screen, you were asked
9 the question very broad. "Why did Philip Morris not want the
10 outside world to know it was supporting animal research?" Do
11 you see that?

12 A. Yes.

13 Q. And you told the court that lawyers and executives believed
14 that if the outside world knows we are supporting animal
15 research it would constitute an admission that there's something
16 in cigarettes that's harmful.

17 A. Okay.

18 Q. Is that what you wrote?

19 A. That's what I wrote. The results -- if you have results
20 that showed that Merit or Marlboro gave you a result, we're not
21 talking about test cigarettes here, we're talking about products
22 they sell.

23 There is no evidence that I've been able to find or
24 that I've seen in court, and Philip Morris' witnesses have
25 agreed with me, that has been available up to the year 2000

1 which shows you any data for a product of Philip Morris being
2 harmful. That's what this is about.

3 Q. Okay. When you say that's -- that's fine. We're going to
4 get to the bottom of.... When you chose to use -- in the early
5 1980s, Victor DeNoble is doing rat research relating to
6 nicotine's efforts and wanted to present the results at a
7 scientific meeting. I don't think you go on to explain whether
8 or not he was allowed to present his results.

9 A. He was not. I mean, the point is when Victor DeNoble wrote
10 that nicotine was not addictive, that was a result that was
11 taken forward.

12 When Victor DeNoble writes something that implies
13 there's reinforcers for nicotine that might make it worse,
14 that's when they close down the project, fire Victor DeNoble and
15 that's the end of it. That's the policy.

16 Q. I want to ask you, just so the court knows. You were not
17 trying to suggest to the court in any way that Philip Morris did
18 not let Victor DeNoble tell the outside world that it was
19 supporting animal research with Victor DeNoble?

20 A. No. He just couldn't tell them the results of that research
21 that would harm the company, that would show that it was
22 biologically harmful.

23 So I didn't mean to suggest -- I apologize if that's
24 the -- what this is read to mean, but that's not what it means
25 to me. Maybe I'm too close to it.

1 Q. Because I want to know. Because the truth is, the truth is,
2 contrary to what you say here, that Philip Morris did not want
3 the outside world to know it was supporting animal research.
4 That very gentleman, Dr. DeNoble, was allowed by Philip Morris
5 to publish numerous articles about the animal research he was
6 doing with Philip Morris's support; is that correct?

7 A. I -- yes, I reviewed every one of them.

8 THE COURT: Was he allowed to publish any articles that
9 presented his research under Philip Morris's -- with Philip
10 Morris's support demonstrating that nicotine was addictive?

11 THE WITNESS: No, he was not.

12 THE COURT: Did he actually have research supporting
13 such a conclusion?

14 THE WITNESS: He had research that -- you can't use
15 rats to prove addictions in humans as I understand it. But he
16 did have research that showed that certain other chemicals in
17 smoke reinforced the effects of nicotine, and that's what he was
18 not allowed to publish because it would say that there were
19 other things in smoke besides nicotine that will make nicotine
20 more addictive.

21 THE COURT: Now I want to go back to something where I
22 think, Dr. Farone, you misspoke.

23 (Pause)

24 Well, I think not. I think not. Go ahead.

25 MR. WEBB: In light of the Judge's question, I want to

1 make sure that we answer that question completely, Doctor.

2 Q. As far as what Victor -- Victor DeNoble did animal research
3 at Philip Morris; is that correct?

4 A. Yes, but not for safety. This was for the nicotine analog
5 program.

6 Q. As far as -- so we can tell the court the full picture,
7 Dr. DeNoble was doing animal research with rats at Philip
8 Morris, and he reported to Philip Morris in numerous documents
9 that he had not concluded smoking was addictive based on the
10 research he did at Philip Morris; is that correct?

11 A. That is correct.

12 Q. And, in fact, he went before Congress, did he not, and under
13 oath before Congress, which you have seen, he told Congress that
14 while he was at Philip Morris, based on the animal research he
15 had done, he could not conclude based on science that cigarette
16 smoking was addictive; is that correct?

17 A. That is correct. You cannot use rat studies to prove
18 addiction. Once you know that it's addictive you can use rat
19 studies to discover the mechanism of addiction.

20 Q. So Philip Morris did not prevent Dr. DeNoble from telling
21 the outside world that he had discovered through his scientific
22 work that smoking was addictive because Dr. DeNoble has
23 acknowledged that he never reached that conclusion; is that
24 correct?

25 A. I didn't say -- I don't understand where you got that.

1 I'm saying what they prohibited him from saying was
2 that acetyldehyde in smoke reinforced nicotine. As long as he
3 agreed with the company position he was allowed to publish his
4 data. As soon as he disagreed or that information became
5 difficult for the company, the project was shut down, the rats
6 were killed in one day. He was taken away. And that happened
7 in April of 1984 and we were all told why it happened.

8 Q. Doctor, actually Victor DeNoble is going to be a witness in
9 this case. So do you agree that Dr. DeNoble may know more about
10 those events than you do?

11 A. I can agree, except Dr. DeNoble wasn't present at the
12 meeting when the management, myself, was told why he was
13 terminated.

14 Q. Well, whatever happened in that meeting, you are aware that
15 Dr. DeNoble, while he was at Philip Morris, advised his
16 superiors and advised Congress that he could not conclude that
17 smoking was addictive, is that correct?

18 MR. GOLDFARB: Objection, misstatement.

19 THE WITNESS: No. He --

20 THE COURT: Overruled. The witness may answer.

21 A. No, as far as I know, Dr. DeNoble never testified before
22 Congress while he was at Philip Morris.

23 Q. That's fair. That's my mistake.

24 He told Congress after he left Philip Morris that he
25 had never discovered or concluded that smoking was addictive

1 while he was Philip Morris; is that correct?

2 A. That is correct and I explained why.

3 Q. Now --

4 THE COURT: Well, I need to understand this better.

5 What are you saying that Philip Morris precluded this
6 Dr. DeNoble from publishing research, his research, about?

7 THE WITNESS: You will probably hear more about it, but
8 it's an issue of chemicals in smoke that enhance the effect of
9 nicotine. In other words, they make it more active. They
10 reinforce it stronger in your brain.

11 Nicotine releases chemicals in your brain which people
12 find pleasurable. It's dopamine. Acetaldehyde, another
13 chemical, enhances that. And recently I've convinced the
14 University of California at Irvine to repeat those research
15 which is those conclusions have been published, which validates
16 the work that Dr. DeNoble did.

17 The importance of this is that nicotine alone is not
18 the chemical that you have to worry about exclusively. You have
19 to worry about mixtures with other chemicals that will reinforce
20 potentially the addictive effects because it makes you get more
21 of this dopamine, which is the chemical thing that happens to
22 people when they use nicotine.

23 THE COURT: Is it also correct that he never reached
24 the conclusion based on his research with rats that nicotine is
25 addictive because it is not appropriate scientifically to base a

1 conclusion about human addiction based on animal behavior?

2 THE WITNESS: That's what I was told. That's what we
3 all -- we all use rats as models. Normally, you know that it's
4 addictive in humans to start off with, then you pick an animal
5 that gives you approximately the same biochemical response to
6 use it as a model. That's true of cancer. That's true of any
7 drug effects.

8 We always use animal models, but the animal models are
9 selected after you have some idea of what kind of a model to
10 select. Like we use pigs for certain feedings studies, it's
11 more of a question of where the mechanisms of ingestion,
12 utilization, inhalation of those chemicals are similar to what
13 happens with humans.

14 BY MR. WEBB:

15 Q. The reinforcement research with rats that you just described
16 to the court that Dr. DeNoble did, you are aware, because you've
17 seen them, that Dr., DeNoble, as he was doing the reinforcement
18 research and as he was obtaining results from his rat studies,
19 he was frequently writing memos to his superiors explaining to
20 his superiors in very clear terms that his research was not
21 establishing that smoking is addictive. Is that correct?

22 A. I think we've just agreed on that.

23 Q. Okay. I want to make sure it's clear.

24 A. Yes.

25 Q. Thank you. Sticking with nicotine. Let me talk about

1 another issue you talk about in your direct examination called
2 the nicotine analog program.

3 Do you recall your testimony in your direct examination
4 on that subject matter?

5 A. I believe I do.

6 Q. Can I have tab 1636, which will be your direct examination,
7 on page 77, if you want to find it.

8 A. Page 767?

9 Q. I think it's page 77, Doctor. I've got it on the screen if
10 it helps refresh your memory. I was just trying to refresh you
11 and the court as to what you said about nicotine analogs?

12 A. Okay.

13 Q. That's all I'm trying to do.

14 You explained to the court in your direct examination,
15 "For example, from the late 1970s when I was there, Philip
16 Morris had a program where we were trying to develop a chemical
17 relative to nicotine, called an analog, as a substitute for
18 nicotine that had the same brain effects as nicotine. Nicotine
19 has some negatives of its own. It's implicated in
20 cardiovascular disease.

21 "So we were trying to find an analog that did not have
22 the negative peripheral nervous system effects such as increased
23 heart rate and blood pressure.

24 "From the documents, such as U.S. Exhibit 34404, which
25 is a 1978 Lorillard document which states that analog research

1 might lead to information that could help Lorillard adjust
2 physiological impact in our cigarettes, one can see that some of
3 the other cigarette companies were interested in nicotine
4 analogs, too."

5 Now, I put that on the screen because, as the court has
6 reminded you and I, we should explain what things are a little
7 bit before we rush into them, so let me do that and maybe help
8 myself, too.

9 First of all, if I understand -- this was a safer
10 cigarette research development project; is that correct?

11 A. Not totally, but from the viewpoint of cardiovascular
12 disease it could be, yes.

13 Q. Okay. And you thought that this was the type of research
14 Philip Morris should be doing; is that correct?

15 A. I felt it was essential if we were going to stay in the
16 business to eventually reduce the risk associated with nicotine
17 itself.

18 After we get all the toxic chemicals out of tar you
19 still have a residual risk from the nicotine and like you do for
20 most drugs, and so like aspirin, Ibuprofen, you make an analog
21 to reduce the risk from that drug itself.

22 Q. You personally participated in this nicotine analog research
23 program; is that correct?

24 A. I did.

25 Q. And you participated in it because you felt it was a good

1 research program for Philip Morris to perform; is that correct?

2 A. That is correct.

3 Q. We talked a lot about tar in this case. We haven't actually
4 talked as much about nicotine, or at least what role nicotine
5 plays in human health, as we have tar. So let's you and I talk
6 about it a little bit.

7 If I understand your previous testimony in other cases,
8 it's your view that nicotine itself is not thought to be one of
9 the constituents in cigarette smoke with respect to causing
10 cancer. Is that correct?

11 A. As far as all of information I've reviewed over the years
12 that's my conclusion, yes, that's agreeing with, I think, most
13 everybody's.

14 Q. It seems to be well accepted in the scientific community
15 that whatever is causing the problem of cigarettes in cancer,
16 it's in the tar or particulate matter and it's not the nicotine.
17 Is that a fair statement?

18 A. I would agree with that, yes.

19 Q. Now, when you were at Philip Morris some researchers
20 actually thought that nicotine might actually inhibit
21 carcinogenesis; is that correct?

22 A. Well, some people thought it was a cocarcinogen, would
23 enhance it. Other people thought that it might inhibit it
24 because of the dopamine release creating better cellular
25 protection, so there was both sides of the issue I heard while I

1 was there.

2 Q. Okay. But one side of what you heard from researchers at
3 Philip Morris and elsewhere, is it, that this thing we talked
4 about this morning, mutagenicity. I have trouble with that
5 word. Something that tends to be mutagenic, that as I
6 understand it, based on your prior testimony, nicotine actually
7 inhibits mutagenicity; is that correct?

8 A. That was some of the Ames' test results that I saw and I
9 think that's the case. Yes.

10 Q. And so at least based on that one test -- I know we can't
11 rely upon one test to conclude anything -- but based on that
12 test, nicotine might, might potentially -- using your word from
13 this morning -- potentially might actually make it less likely
14 that someone would get cancer based on the Ames' test?

15 A. It's possible. You would have to have a lot of nicotine and
16 a little of the other material, but that was one of the
17 hypotheses that was tested.

18 Q. And also you were well aware, as I understand from your past
19 testimony, that there are -- there is well recognized beneficial
20 aspects to nicotine, including increased mental alertness,
21 anxiety reduction, reduction of stress, improved performance of
22 tasks, alleviation of aggression, helping people cope with the
23 pressure of the environment, helping people control their
24 weight, and facilitation of social interaction. Is that
25 correct?

1 MR. GOLDFARB: Objection, Your Honor. Dr. Farone is
2 not offered as an -- proffered as an expert in the --

3 THE COURT: I'm sorry, Mr. Goldfarb. What is the
4 objection?

5 MR. GOLDFARB: Dr. Farone is not offered as an expert
6 in the human effects of addiction. He's proffered as an expert
7 in the chemistry and biochemistry of alkaloids and other
8 addictive drugs. So once again, it's behavioral effects.
9 Dr. Farone is not proffered as an expert in the beneficial
10 effects of nicotine as posed in the question by counsel.

11 THE COURT: No. The objection is overruled. If the
12 Doctor doesn't know the answer, he can say so.

13 A. Could I hear the question.

14 Q. Maybe I'll just -- let me show you testimony you've given in
15 the past and we will see if it's correct.

16 Could I have tab 669 called up on the screen?

17 "Question: Dr. Dunn believes strongly that there are
18 benefits to smokers from nicotine, does he not?"

19 Do you see that question?

20 A. Yes.

21 Q. Dr. Dunn was a researcher at Philip Morris?

22 A. Yes.

23 Q. Is that correct?

24 A. Yes, it is.

25 Q. Did you know Dr. Dunn?

1 A. Very well.

2 Q. "And that is a view which is shared by you, is it not?"

3 And you answered, "Yes." Do you see that?

4 A. Yes.

5 Q. That was a truthful answer on your part; is that correct?

6 A. Yes.

7 Q. "Question: That is a view which is shared by many others
8 both within and outside of the cigarette manufacturers.

9 "Answer: I think so."

10 Can we go on from there? Actually, I think that's the
11 end of that quote.

12 MR. GOLDFARB: Again, Your Honor, could we have the
13 testimony provided to Dr. Farone so he can --

14 MR. WEBB: Absolutely.

15 MR. GOLDFARB: -- review it in context? Thank you.

16 MR. WEBB: We will get it right now.

17 BY MR. WEBB:

18 Q. While we are getting -- I'll get the testimony, but let me
19 just ask. I'll break it down.

20 When you answered the question that there are benefits
21 to smokers from nicotine, that's your opinion; is that correct?

22 A. Benefits -- there are physiological effects of nicotine as a
23 drug, which are beneficial to some people. That's what the
24 point is here. And I think that's widely accepted.

25 Q. And I'm not trying to belabor this, so let me quickly go

1 through it.

2 Some of those physiological benefits to some people, do
3 they include increased mental alertness?

4 A. For some people.

5 Q. Does it include anxiety reduction for some people?

6 A. Yes. Especially schizophrenics, yes.

7 Q. Does it reduce stress in some people?

8 A. Yes.

9 Q. Does it improve performance of tasks in some people?

10 A. We're talking about nicotine here, not smoking, just as a
11 drug, nicotine, the answer is yes.

12 Q. Does it alleviate aggression in some people?

13 A. Yes.

14 Q. Does it help people to cope with the pressure of the
15 environment for some people?

16 A. Yes.

17 Q. And does it help some people control their weight?

18 A. Well, I'm not sure. That's the one I'm having trouble with.
19 There's two issues here. One is smoking.

20 Q. I'll tell you what. If you tell me I'm wrong, I'll move on.

21 A. That one, I'm not clear on that one.

22 Q. I accept it. You're not clear on that.

23 Do you believe it facilitates social interaction with
24 some people?

25 A. Not nicotine, no.

1 Q. I accept that, too. So you think there are some benefits
2 that you just described. Is that fair to say?

3 A. There are some pharmacological benefits to the use of
4 nicotine as a drug where it's indicated, yes.

5 Q. And, in fact, am I correct, based on what I've seen in other
6 testimony, that you recognized that nicotine in cigarette
7 smoking may thought by some to possibly prevent some nervous
8 system disorders; is that correct?

9 A. There is a relationship between the use of nicotine and
10 reduction in schizophrenia, yes. You know, this is all
11 literature stuff. I don't intend to be -- I'm not an expert in
12 this area, but I'm just giving you what I read.

13 Q. I'm trying to bring out what you know. Okay?

14 A. Okay.

15 Q. Have you testified in the past that nicotine in cigarette
16 smoking is thought possibly to prevent Alzheimer's disease?

17 A. Nicotine has, but I don't know about smoking necessarily.

18 Q. I'll take it -- nicotine?

19 A. Yes.

20 Q. Is there research that shows nicotine may be beneficial in
21 treating Alzheimer's?

22 MR. GOLDFARB: Your Honor, objection, again. This is
23 getting far afield from the expertise for which Dr. Farone is
24 proffered.

25 THE COURT: Well, it is, but number one the testimony

1 is certainly relevant to the general testimony that he has
2 given, though the comprehensive testimony, that he has given.
3 That's number one.

4 And number two, he has offered these opinions before in
5 other contexts.

6 And number three, he has made it clear that what he is
7 offering to the court is essentially a summary of what others
8 have said. And I am not taking it -- and Dr. Farone can correct
9 me if I am wrong -- I'm not taking it as his personal research
10 or his personal opinion, but simply this is what is in the
11 research and is in the scientific literature.

12 Dr. Farone, is that a fair summary?

13 THE WITNESS: Yes. Again, I've read a lot of papers
14 and when he asked me if I'm aware of them, I'm answering yes.

15 THE COURT: Go ahead, please.

16 BY MR. WEBB:

17 Q. And I think there's similar research that nicotine may
18 possibly prevent Parkinson's disease; is that correct?

19 A. Parkinson's disease is a Dopamine deficiency, and nicotine
20 enhances the Dopamine release and that's why some people have
21 suggested it be used a drug for Parkinson's disease, yes.

22 Q. Let's take -- but there are some -- nicotine may not, or
23 does not cause cancer. Nicotine has some positive benefits, but
24 nicotine does have some negative consequences on a person's
25 heart, cardiovascular health; is that correct?

1 A. Correct. Like every other drug, there's a risk-benefit
2 ratio that one has to take a look at.

3 Q. As I understand your prior testimony, nicotine can raise in
4 some people their heart rate; is that correct?

5 A. Correct.

6 Q. And, therefore, you believed it was a good thing for Philip
7 Morris to research and see whether or not it might be possible
8 for science to come up with an analog that could be substituted
9 in cigarette manufacturing that would take the nicotine out, put
10 the analog in, and get rid of that cardiovascular impact; is
11 that correct?

12 A. That's part of it, yes.

13 Q. Although, by the way, I noticed something I came across last
14 night. Have you seen some recent research that actually is kind
15 of downplaying the role of nicotine having any substantial
16 effect on cardiac health?

17 A. I don't -- I've seen -- you know, there's various reports
18 and people looking at different levels of nicotine and, you
19 know, the use of the patch and some of the other things, they
20 don't see to see some of the negative effects.

21 Q. Let me show you one example and you can tell me your
22 reaction to it. Do you think who Dr. Neal Benowitz is?

23 A. Yes.

24 Q. Is he a well-known addiction expert in the United States?

25 A. Yes, sir.

1 Q. You're aware that government is calling him as an addiction
2 expert in this case?

3 A. Yes.

4 Q. Have you seen some work -- strike that. Let me show you an
5 article of his.

6 Can I have -- Grace, I want to show him the whole
7 article so he can see it. That's JD 10920.

8 And for the screen, I think it's tab 1641, which is a
9 page out of that article.

10 I just recently saw this and you can tell me what it
11 means. From -- can I go to the first page again.

12 MR. GOLDFARB: Your Honor, if Dr. Farone just just been
13 given this article, could we ask that he be given an opportunity
14 to read the article before he tries to interpret it for counsel?

15 MR. WEBB: That's fine. I have no problem.

16 THE COURT: We're not going to take the time right now.
17 What we will do is at about 3:00 we will take an afternoon
18 recess and during that short recess he can at least skim it, and
19 if he's comfortable responding to your question, he can.

20 MR. WEBB: I'll do it exactly that way.

21 BY MR. WEBB:

22 Q. Doctor, let me explain to you what I'm going to ask you. I
23 just highlighted -- can I pull that out on the screen?

24 When I saw Dr. Benowitz had written, "Almost certainly
25 nicotine via its hemodynamic effects contributes to acute

1 cardiovascular events, although current evidence suggests that
2 the effects of nicotine are much less important than are the" --
3 what's that word?

4 A. Prothrombotic.

5 Q. -- "prothrombotic effects of cigarette smoking or the
6 effects of carbon monoxide. Nicotine does not appear to enhance
7 thrombosis among humans. Clinical studies of pipe smokers and
8 people using transdermal nicotine support the idea that toxins
9 other than nicotine are the most important causes of acute
10 cardiovascular events."

11 And I have no expert -- I read that to be Dr. Benowitz
12 was saying that he thinks at least that maybe nicotine isn't
13 even all that important in cardiovascular issues. But am I
14 misinterpreting that statement?

15 MR. GOLDFARB: Your Honor, I'm going to object again.
16 Dr. Benowitz will be here.

17 THE COURT: I'm going to sustain the objection.

18 MR. WEBB: I'll strike it. I shouldn't have gone
19 there.

20 THE COURT: This is not totally an academic exercise,
21 everybody. I want to emphasize that. I know that this witness
22 has an enormous amount of information to convey, but there are
23 limits on time as we all know.

24 MR. WEBB: I agree.

25 BY MR. WEBB:

1 Q. Let me come -- I digressed from the nicotine analog program
2 at Philip Morris that you talked about on direct examination.

3 Doctor, am I correct, work on the Philip Morris'
4 nicotine analog research started before you arrived at Philip
5 Morris and continued throughout the time you were at Philip
6 Morris; is that correct?

7 A. Yes, it is.

8 Q. And while you were not responsible for the program
9 originally, it was eventually transferred to your directorate
10 near the end of your time in R&D around 1982 or 1983. Is that
11 your recollection?

12 A. Yes. The synthesis portions, the chemical portions, the
13 testing portions were still under Dr. Osdene's directorate.

14 Q. And it was your opinion while you were at Philip Morris --
15 let me ask.

16 Were Dr. Jeff Seaman and Dr. Sanders two of the
17 scientists that were very much involved in this project?

18 A. They were involved in the synthesis of the chemicals, yes.

19 Q. And they were coworkers with you on this nicotine analog
20 program?

21 A. Well, I wouldn't put it exactly this way.

22 Dr. Sanders was the manager of the chemical research
23 division which eventually reported to me where this work was
24 done, and Dr. Seaman was a senior scientist in that division,
25 and I worked with them in providing some of the physical

1 chemistry support for the project.

2 Q. And the project itself went on for quite some time and you
3 recognized actually Philip Morris invested a lot of R&D money in
4 that project; is that correct?

5 A. Yes.

6 Q. And you believe some very talented Philip Morris' scientists
7 worked very hard on that project; is that correct?

8 A. Yes.

9 Q. And you were aware the project continued after the you left
10 the company; is that correct?

11 A. Yes.

12 Q. And you were aware that while the project was going on
13 Philip Morris was communicating with government officials about
14 the work they were doing; is that correct?

15 A. I believe so, yes.

16 Q. And are you aware that Philip Morris' scientists wrote a
17 number of articles about the research Philip Morris was doing on
18 the nicotine analog program?

19 A. Yes. I participated in two.

20 Q. You participated in two of the articles?

21 A. Right.

22 Q. And Philip Morris actually sought patents on this process;
23 is that correct?

24 A. On the chemicals as insecticides, yes.

25 Q. Let me go to another subject. Addiction.

1 You provide quite a bit of testimony as an expert
2 witness to this court on the subject matter of addiction; is
3 that correct?

4 A. Yes, the biochemistry, not the human part of it.

5 Q. Well, let's... as far as you becoming an addiction on expert
6 that can provide --

7 THE COURT: An expert on addiction.

8 MR. WEBB: Yes.

9 BY MR. WEBB:

10 Q. As far as you becoming an expert on the subject matter of
11 addiction to provide expert opinion testimony to this court, am
12 I correct you were not an addiction expert when you worked at
13 Philip Morris?

14 A. I'm not an expert on addiction in the sense of psychology,
15 psychiatry, medicine, no. I agree.

16 Q. Can I have tab 944 called up, please? This is your
17 testimony in the complex asbestos deposition, October 5, 2000.

18 "And you were not an addiction expert when you worked
19 at Philip Morris?" And you answered the question, "That's
20 correct." Was that a truthful answer?

21 A. Yes.

22 THE COURT: What's the objection?

23 MR. GOLDFARB: I was going to ask if counsel was going
24 to continue to question Dr. Farone about the document, that he
25 be provided a copy of his deposition.

1 THE COURT: Yes.

2 MR. WEBB: I will get it right now. That's the only
3 question I have, but I'll get the deposition.

4 THE COURT: That's the only question in this
5 deposition?

6 MR. WEBB: Yes, in this deposition.

7 THE COURT: Oh, well, then let's move on.

8 BY MR. WEBB:

9 Q. Over the years as you've testified in a number of various
10 proceedings, you've frequently testified that you did not
11 consider yourself an addiction expert; is that correct?

12 A. Yes. I'm normally what's considered addiction experts. You
13 know, I'm not -- again, not a psychiatrist, psychologist,
14 medical doctor, toxicologist.

15 Q. Am I correct the first time you decided that you were an
16 addiction expert was in the Neery case in September of 1999; is
17 that correct?

18 MR. GOLDFARB: Objection.

19 MR. WEBB: Strike the question. Let me strike the
20 question. I misphrased the question.

21 BY MR. WEBB:

22 Q. Actually, as of September 1999, you were still testifying
23 you were not an addiction expert; is that correct?

24 A. Yeah. The part of -- yes. I mean, biochemistry -- the
25 mechanism by which the chemical interacts with the brain is

1 biochemical.

2 If that's the question, like it was in Miles, okay,
3 then I'm an expert on that part of it. Now, if you want to call
4 this addiction, some people do, I think if that's the issue --
5 the question you're asking me is the interaction of nicotine
6 with the cholinergic receptor in the brain, part of my
7 expertise, I say yes. Now, if you want to characterize that as
8 addiction, that's up to you. I characterize that as biochemical
9 aspect of interaction of drug with a brain receptor.

10 Q. When people ask you -- can I have tab 950, please? This is
11 the last time I could find you actually testifying you were not
12 an addiction expert. This is in the Neery deposition, September
13 22, 1999.

14 "Do you consider yourself to be an expert in addiction?

15 "No. I'm not an expert in addiction, but I am an
16 expert in nicotine, the chemical structure of things which may
17 be addictive."

18 Does that accurately set forth what you're trying to
19 say?

20 MR. GOLDFARB: Objection, Your Honor. Again this is
21 cumulative. Dr. Farone answered that question four times now.

22 THE COURT: Well, he's answered it a lot. This is the
23 last question you're going to be asking directly relating to his
24 self-described expertise on this subject?

25 MR. WEBB: It's the last testimony I'm going to give

1 him, yes. I have a couple of questions beyond --

2 THE COURT: Okay, go ahead. And I really misspoke. I
3 said self-described expertise. Clearly, he is saying he is not
4 an expert in certain aspects of addiction, and depending upon
5 how one defines the term addiction, he is or is not an expert in
6 biochemical aspects of it.

7 BY MR. WEBB:

8 Q. Does that summarize your belief about where your expertise
9 is?

10 A. Yes.

11 Q. Okay. Just so the record is clear. You've actually --
12 you've not done any professional work or experience in the
13 addiction field. Is that fair to say?

14 A. As we've defined it meaning with humans, correct, I have
15 not.

16 Q. And addiction was not an area -- strike that.

17 When you were in the Applied Research Department, that
18 was not the department at Philip Morris that dealt with
19 addiction; is that correct?

20 A. That is correct.

21 Q. The animal and behavioral testing that was going on at
22 Philip Morris was being conducted in other directorates?

23 A. In Dr. Osdene's directorate to be specific.

24 Q. Now, during your direct examination you testified -- let me
25 show you your testimony.

1 Can I have Dr. Farone's direct examination, page 74,
2 line 20 to 21 called up on the screen? If I could have line 20
3 and 21 culled out. Cull out the question, too.

4 The question you were asked was, "What was the general
5 view of Philip Morris' scientists about whether cigarette
6 smoking is addictive?"

7 And your answer was, "There was widespread agreement
8 among scientists in R&D" -- that's Philip Morris's R&D
9 Department?

10 A. Yes.

11 Q. "That smoking is addictive." We can stop there for a
12 minute.

13 That statement by you, that there was widespread
14 agreement among scientists in R&D that smoking is addictive,
15 that statement that you made in your direct examination, am I
16 correct that the person at Philip Morris that was actually --
17 that knew the most about the science of addiction was
18 Dr. DeNoble who we just talked about?

19 A. I wouldn't agree with that. I would think it would be
20 Dr. Dunn because Dr. Dunn was the behavioral psychologist.
21 Dr. DeNoble was a clinical. He was doing clinical work. And --
22 I mean -- but I'm talking about general -- what general
23 scientific opinion is here, not among -- we only have very
24 limited number of behavioral or clinical psychologists,
25 psychiatrists -- or psychologists, pardon me.

1 Q. Would you agree with me that Dr. DeNoble was a person who
2 work at Philip Morris who knew a lot about the science of
3 addiction?

4 A. Yes.

5 Q. And I'm going to show you his congressional testimony that I
6 asked you about a little bit ago.

7 You're aware that he testified in front of Congress
8 several years after he left Philip Morris; is that correct?

9 A. Yes.

10 Q. And this is actually -- if I could have tab 1651. This is
11 the government, U.S. Exhibit 20398, which is congressional
12 testimony by Dr. DeNoble in May of 1994.

13 As I understand, you've testified in other cases that
14 you actually read his testimony; is that correct?

15 A. Yes.

16 Q. Now, Dr. DeNoble --

17 MR. GOLDFARB: Objection again. Could we make sure the
18 witness has -- every time that counsel is showing him a
19 document, Dr. Farone should be provided with a document.

20 THE COURT: I'm going to sustain it on that ground.
21 And I don't know where we're going here. This testimony was
22 given years after this witness left.

23 MR. WEBB: Your Honor, I'll stop it.

24 The reason I'm doing it is only because he is saying
25 there was widespread acceptance in Philip Morris. Dr. DeNoble

1 is talking about the years at Philip Morris. He's talking about
2 back in the years of Philip Morris, 1980, '81, '82, '83 and '84.
3 I think there was some doubts in my mind because the data wasn't
4 there.

5 THE COURT: Is Dr. DeNoble going to be testifying, by
6 the way?

7 MR. WEBB: Yes, he is.

8 THE COURT: Aren't you going to show this to
9 Dr. DeNoble or ask him the same question?

10 MR. WEBB: I am, Your Honor. All I was trying to --
11 I'm trying to address the point, his statement that there was
12 widespread agreement --

13 THE COURT: I understand. We are taking more time
14 arguing about it. But the witness has a right to look at the
15 context, especially congressional testimony. So, you can put
16 that along with the other document over until we take our recess
17 in a few minutes and he can look at both documents.

18 MR. WEBB: I will do that, Your Honor.

19 MR. GOLDFARB: And Your Honor, I would just enter my
20 objection for the record.

21 THE COURT: It stands.

22 BY MR. WEBB:

23 Q. Now, if I could come back to -- can I come back to your
24 direct examination, page 74, line 21 and 23, the statement you
25 made about widespread acceptance inside Philip Morris that

1 smoking was addictive.

2 The statement you made there to the court, "There was
3 widespread agreement among scientists in R&D that smoking is
4 addictive."

5 You go on to say, "I never heard someone make
6 substantive remarks to the effect it was not addictive. The
7 scientists did, however, talk about ways to provide information
8 that could criticize what outside scientists had concluded."

9 Just so I understand, is it your testimony that the
10 reason you believed there was widespread agreement among
11 scientists that smoking is addictive is because scientists
12 didn't walk around saying that it was not addictive?

13 A. No. No.

14 It's always been an issue as to how you define
15 addiction, and I define it on a chemical basis, other people
16 define it on a psychological basis. I understand that.

17 My understanding of the addictive nature, as I have
18 pointed out, goes back to 1960 when I was a senior in college
19 and was taught from a chemical perspective what addictive drugs
20 were. Nicotine was one of the ones that was listed and we were
21 told why, exactly why it was considered to be addictive.

22 If you look at the testimony from Philip Morris of
23 Dr. Whidby and others, they agree that we operated at Philip
24 Morris under the hypothesis that it was addictive because the
25 evidence supported that. Even Dr. DeNoble and that other

1 statement is saying he didn't feel the evidence was sufficient.
2 Okay? So he didn't go to the same schools I did and he can have
3 his own opinions, you will hear them.

4 But the people that I was working with, the chemists,
5 understood that when you have a chemical that goes to your brain
6 that releases something like dopamine, that it's a replacement
7 for catechol. I mean, which is a natural thing, it does the
8 same thing. That all of the earmarks of a chemically-addictive
9 material are there and that's what we were working on.

10 So the addiction that I'm talking about is an
11 understanding of the medical pharmacological, if you will, not
12 medical, by biochemical aspects of what this chemical does.

13 Q. Okay. When you say there was widespread agreement among
14 scientists in R&D that smoking is addictive, just so I
15 understand, when you came to Philip Morris, at the time you came
16 there, the Surgeon General of the United States was on record as
17 concluding that smoking was not addictive. Is that correct?

18 A. That's my understanding, yes.

19 Q. And was -- and during the years that you were at Philip
20 Morris up to the time you left in 1984, the Surgeon General was
21 still on the record as saying cigarette smoking was not
22 addictive; is that correct?

23 A. The Surgeon General had said that. The APA, which I
24 reference in here, had said that it was. And those are all
25 based on human indicators of addiction. Okay?

1 And I'm basing mine on chemical indicators, which that
2 evidence goes way back to 1942, as I've outlined in my direct
3 testimony.

4 Q. As far as the word that you've used in this paragraph that
5 smoking is addictive, are you using it in a different way than
6 the Surgeon General was evaluating the word?

7 A. I don't know the answer to that.

8 Q. Because we do know there's an entire section of the 1964
9 Surgeon General's report that tries to talk about the difference
10 between whether we ought to call this behavior a habit or an
11 addiction. Is that fair to say?

12 A. There was terminology discussion for human interactions
13 between the use of the term habituation, addiction, and all of
14 that.

15 All I can tell you is as a chemist, this chemical binds
16 to that receptor, does very similar things that addictive drugs
17 do. You get intoxicated. You become dependent. All of the
18 chemical aspects of interaction with cells are there since it's
19 been -- since nicotine has been around. And I haven't seen any
20 evidence since I was educated that says, you know, we've
21 discovered now that nicotine does not release catecholamine. It
22 doesn't make you feel better -- Dopamine, it doesn't make you
23 feel better. It doesn't do any of these things. You don't
24 become -- you don't suffer from withdrawal.

25 So my comments are related to my expertise, and the

1 scientists at Philip Morris, we could not even have been working
2 on a nicotine analog program unless we accepted the addictive
3 mechanism of that chemical.

4 Q. Well, let's look at what at least the Surgeon General, not
5 you, but the Surgeon General was saying to Philip Morris and
6 everybody else at the time you came there.

7 Can I have Joint Defense Exhibit 59895 called on the
8 screen, please?

9 You've read the 1964 Surgeon General's report; is that
10 correct?

11 A. Yes. Not recently.

12 Q. Tab 1652. It's joint exhibit. I made a mistake on that.
13 Joint Exhibit 59 -- it's tab 1652.

14 I put the front page of it up. It's been a while since
15 you've read this report, is that fair to say, but you read it at
16 one point in time?

17 A. I've referenced it many times or read it many times, but not
18 in the last couple of years.

19 Q. If I could go to -- if you go to page 350. I think if you
20 go to page 349, you see the start of chapter 13. Do you see
21 that?

22 A. Yes, I do.

23 Q. Can we go to page 349? I think that's tab 1653.

24 And there's a chapter in which this issue about whether
25 it's a habit or an addiction is discussed by the Surgeon

1 General; is that correct?

2 A. Yes.

3 Q. Okay. And if I could go to page 350, the next page.

4 Actually, page 351 is fine. I'm not going to go through this.

5 But there's a discussion -- can we cull out the top of
6 the right-hand column where there's a discussion of drug
7 addiction versus drug habituation. The Attorney General goes
8 through an analysis --

9 THE COURT: Surgeon General.

10 MR. WEBB: The Surgeon General. I'm too much in law,
11 Your Honor. I've been at my feet too long today.

12 BY MR. WEBB:

13 Q. The Surgeon General --

14 THE COURT: Possibly.

15 MR. WEBB: I agree.

16 THE COURT: Go ahead.

17 BY MR. WEBB:

18 Q. The Surgeon General is going through what at least the
19 Surgeon General interprets to be drug addiction, goes on to say
20 is a state of periodic or chronic intoxication produced by the
21 repeated consumption of a drug, natural or synthetic. Its
22 characteristics include, and he goes on to talk about various
23 characteristics of addiction.

24 Do you see that?

25 A. Yes, I do.

1 MR. GOLDFARB: Objection, Your Honor. Again, these
2 definitions and the discussion of the Surgeon General's report
3 is an area of expertise or an aspect of addiction for which
4 Dr. Farone is not proffered as an expert and which he has
5 indicated he's not an expert in this area.

6 MR. WEBB: Your Honor, he's given fact testimony. He's
7 given fact testimony, and that's that there was widespread
8 acceptance in Philip Morris that smoking is addictive. And I
9 certainly have a right to at least explore what actually was the
10 state of the world when he was at Philip Morris to at least
11 attack that statement to you.

12 THE COURT: I'll allow a short amount of questioning on
13 this issue. Go ahead.

14 BY MR. WEBB:

15 Q. The Surgeon General goes through a fairly lengthy discussion
16 of the issue about whether smoking should be classified as an
17 addiction or a habit. Is that fair to say?

18 A. That is fair to say.

19 And I would like to point out that the relevant issues
20 for a chemist were on page 349, items 1 through 5, where it
21 discusses all of the chemical phenomena that this drug possesses
22 along with marijuana and opium and so on and cocaine.

23 So I understand the issues around the definitions
24 psychologically, but that's not where -- that's not where I'm
25 at. I'm at the chemistry.

1 And if you read page 349, which I commend to you, you
2 will understand why a chemist might say that this is a drug of
3 abuse.

4 Q. I've actually read page 349. So the Surgeon General
5 actually considers the chemistry aspect of what you've been
6 telling the court, and yet if we go to page 354 the Surgeon
7 General reaches a conclusion that cigarette smoking is not
8 addictive. Is that correct?

9 Can I have page 354? I think it's tab 1655. And if
10 you go down to the summary, under the summary, the second
11 paragraph. Can I cull that out?

12 "The tobacco habit should be characterized as a
13 habituation, rather than an addiction, in conformity with
14 accepted World Health Organization definitions. Since once
15 established there is little tendency to increase the dosage" --
16 is it part cut off there -- "the dose, psychic, but not physical
17 dependence is developed; and the detrimental effects are
18 primarily on the individual rather than society. No
19 characteristic abstinence syndrome is developed upon
20 withdrawal."

21 At least the Surgeon General, after discussing your
22 chemical analysis, at least this is the conclusion -- if I was
23 working at Philip Morris during the years you were there, I
24 would have known the Surgeon General reached this conclusion.
25 Is that fair to say?

1 A. No.

2 Q. I would not have known that when I worked at --

3 MR. GOLDFARB: Objection. Your Honor, he provided --
4 the testimony provides factual testimony about what he was told.
5 He identifies the people with whom he discussed the issue in his
6 testimony. It is a factual recitation --

7 THE COURT: Mr. Goldfarb, I understand that. The
8 problem is -- and this is what Mr. Webb is attempting to get
9 at -- is what definition of, quote, addictive, unquote,
10 Dr. Farone was using when he said in his direct testimony that
11 there was widespread agreement among scientists in R&D that
12 smoking is addictive.

13 That is a strong statement that was made. It is a very
14 important factual statement, and that's the reason I'm allowing
15 so much cross-examination on it.

16 So, Mr. Webb, you have about three more minutes on
17 this.

18 MR. WEBB: I'll go fast.

19 A. Can I finish my answer to the question?

20 Q. I didn't know there was a question pending.

21 A. No. You asked me whether that was what happened and whether
22 the scientists at Philip Morris had a right to rely on that. I
23 think there is a question if you want to reread it back.

24 Q. Let me ask you the question.

25 Do you think -- all I'm asking is did the scientists at

1 Philip Morris, do you at least believe were likely to be aware
2 of what the Surgeon General said in this report?

3 A. I'm pointing out that there's many more chemists at Philip
4 Morris than there are psychologists, many, many more.

5 And the biochemists' opinion has not changed since the
6 '40s and '50s, and whatever happened to the psychologists and
7 psychiatrists, that's different. The Surgeon General has
8 changed his mind, the chemists have not changed theirs.

9 So all I can tell you is that the chemists
10 predominantly within R&D understood how this drug acted and they
11 understood what that meant. And so I can't speak for the
12 psychologists and the psychiatrists.

13 Q. Maybe I can shortcut this. The real issue in this case is
14 whether or not when people from the tobacco companies or the
15 Tobacco Institute in certain years, the years you were there,
16 you heard people say that smoking was not addictive. Is that
17 correct?

18 A. I've heard them say that up through 1999, yes.

19 Q. Okay. I'm talking about -- will you focus on the years you
20 were there?

21 I take it when you said there was widespread
22 acceptance, you're talking about the years you were working at
23 Philip Morris?

24 A. Yes, 1976 to 1984.

25 Q. So, during those years you're not offering any suggestion

1 that if statements were made by Philip Morris during those years
2 based on the Surgeon General's report, you're not suggesting
3 there's anything wrong with those statements. Is that fair to
4 say?

5 A. If those statements were made based on the Surgeon General's
6 report, I can agree with that.

7 Q. Okay. I can shortcut this examination based on that
8 acknowledgement.

9 THE COURT: Are you going to move to another topic?

10 MR. WEBB: I am.

11 THE COURT: Let's take a brief recess now. Let's try
12 for 10 minutes, if we can, and then let's try to break at 4:30.

13 (Recess began at 3:08 p.m.)

14 (Recess ended at 3:20 p.m.)

15 THE COURT: Mr. Webb, please.

16 BY MR. WEBB:

17 Q. Dr. Farone, in your direct examination you testified about
18 the subject matter of Philip Morris's use of ammonia in the
19 tobacco manufacturing process to enhance the effect of nicotine
20 on the smoker; is that correct?

21 A. Yes.

22 Q. And tell the court when did Philip Morris first start using
23 ammonia in the manufacturing process of cigarettes?

24 A. I'm not -- by ammonia, first of all, you would need to
25 indicate all things which, when burned, give off ammonia. So,

1 we're not talking about ammonia as a specific chemical itself.
2 So it includes things like diammonium phosphate, ammonium
3 hydroxide, all of those kinds of things.

4 My understanding is the first major use was with the
5 advent of reconstituted tobacco in probably the late 1950s.

6 Q. Okay. And am I correct -- actually, ammonia is -- there's
7 actually ammonia -- ammonia compounds naturally occur in
8 tobacco; is that correct?

9 A. Yes, and some -- I mean, when you burn simple amino acids
10 they give off some ammonia. So we are talking about added
11 ammonia or added ammonia compounds in addition to what's
12 naturally present.

13 Q. And Philip Morris, the first time they used it you think was
14 in the 1950s in the reconstituted leaf manufacturing process; is
15 that correct?

16 A. There is -- as I understand it, their original reconstituted
17 leaf project, what was called the RCB or BL sheet.

18 Q. And it's certainly no secret -- it's been no secret for
19 years that Philip Morris was using ammonia in its compounds; is
20 that correct?

21 I'm sorry. Using ammonia or ammonia compounds in its
22 manufacturing process.

23 A. No secret to who? I'm sorry. You mean in terms of there
24 being other public knowledge in literature.

25 Q. Yes.

1 A. As far as I know, one could determine from the literature
2 and from some of the patents that the potential for that use was
3 there, but I don't know that anybody actually knew what Philip
4 Morris was doing in its plant other than the people that worked
5 at Philip Morris.

6 Q. Have you ever testified that you did not think it was any
7 secret that Philip Morris was using ammonia compounds to make
8 reconstituted tobacco?

9 A. Yes. It wasn't any secret to the other tobacco companies or
10 anybody who would care to analyze it in that sense.

11 Q. Philip Morris actually had a patent on the process?

12 A. There were patents related to it, yes.

13 Q. And Philip Morris and some of the other companies also used
14 ammonia compounds when they were making that expanded tobacco
15 that you've talked about earlier in your testimony; is that
16 correct?

17 A. That is correct.

18 Q. And you are aware, as I understand your prior testimony,
19 ammonia compounds used in the cigarette manufacturing process do
20 contribute to the taste of the product; is that correct?

21 A. Yes. You sense ammonia. It's more -- it is a part of
22 taste. There's a sort of sensation, basic sensation, yes.

23 Q. Ammonia can basically improve the overall taste sensation of
24 tobacco to the smoker; is that correct?

25 A. In low delivery cigarettes where you don't have much to

1 indicate to a smoker there's anything there, they can improve
2 that, yes.

3 Q. Okay. Now, in fact, Philip Morris actually has patents that
4 are related to using ammonia to make tobacco more flavorful; is
5 that correct?

6 A. That is correct.

7 Q. And as far as the idea of using ammonia in the cigarette
8 manufacturing process, isn't it true that in the past the public
9 health community has actually suggested it might be a good idea
10 to use ammonia in the manufacturing process of cigarettes?

11 A. Are you referring to the -- I'm not sure. I believe so.
12 That's the tobacco working group recommendations?

13 Q. Yes.

14 A. Yes.

15 Q. Well, some scientists in the public health community have
16 suggested that tobacco companies could make a safer cigarette by
17 using ammonia to affect pH; is that correct?

18 A. That is correct.

19 Q. And that idea was actually discussed long before the 1970s;
20 is that correct?

21 A. I don't remember the first date, but I don't doubt that
22 because it's an obvious chemical thing to do.

23 Q. Let's talk about that. In fact, the National Cancer
24 Institute had suggested that it might be a good idea to use
25 ammonia in the manufacturing of cigarettes; is that correct?

1 A. Yes, to change the form of the ammonia, right.

2 Q. And in the 1970s when you were at Philip Morris, you were
3 aware that the public health community was suggesting that you
4 could actually use pH -- you could use ammonia, affect pH and
5 maybe develop a safer cigarette; is that correct?

6 A. Yes.

7 Q. And you agreed with that idea, didn't you?

8 A. Yes.

9 Q. And you thought -- strike the question.

10 The idea was basically, as I understand it from your
11 prior testimony, is that you could use ammonia in the
12 manufacturing of cigarettes and it would eventually result in
13 being able to change the nicotine and tar ratio; is that
14 correct?

15 A. Yes. One thing it would change, the nicotine-to-tar ratio
16 if used correctly. You have to know how to do it to make it do
17 that. And the second thing, it changes the form of the nicotine
18 so there's more free nicotine.

19 Q. As I understand it, when you worked at Philip Morris, you
20 did not have any problem with Philip Morris using an ammonia to
21 make a safer cigarette; is that correct?

22 A. That is correct.

23 Q. Now, I'm not going to go through these -- let me see if I
24 can shortcut this.

25 Would you agree that -- you've seen quite a few

1 scientific articles written on the subject matter of using pH
2 changes to make safer cigarettes.

3 A. Yes.

4 Q. Do you recall an article by Dr. G.O. Gori of NCI who also
5 headed up the tobacco working group who wrote an article about
6 using adjustments in pH to make a safer cigarette?

7 A. Yes.

8 Q. And let me direct your attention to one part of your
9 testimony. Could I have tab 1456? This would be your direct
10 examination on page 95.

11 The question I put on the screen is that, "Did Philip
12 Morris use ammonia to exploit its properties?"

13 "Yes. As I heard at many Richmond meetings, speeches
14 and discussions when I was there, Philip Morris considered its
15 blended leaf, or BL, to be a secret to Marlboro success because
16 of the ammonia added to the BL."

17 Do you see that testimony?

18 A. Yes.

19 Q. Marlboro is the best selling cigarette in the United States
20 at that time, was it not, when you were at Philip Morris?

21 A. It occurred during the time I was there, yes.

22 Q. Am I correct you are aware in the 1980s Philip Morris
23 actually cut back on the level of ammonia in Marlboro
24 cigarettes? Is that correct?

25 A. I think you're referring to Marlboro Light, yes.

1 Q. Did that happen?

2 A. There was -- some of the -- when we put in the blended --
3 pardon me.

4 The RL, the reconstituted leaf, that resulted in a
5 reduction of ammonia.

6 Q. When the ammonia went down Marlboro continued -- market
7 share continued to go up during that time period; is that
8 correct?

9 A. Yes.

10 Q. And, in fact, if we want to just look at ammonia. Marlboro
11 is not a cigarette on the market -- strike the question.

12 Marlboro --

13 THE COURT: Let me interrupt you a minute.

14 When you responded to the question about ammonia going
15 down and market share going up, was that in a regular Marlboro
16 or Marlboro Lights?

17 THE WITNESS: From recollection, my understanding, when
18 we increased the amount, there was these two sheet materials and
19 I think we put more of it in the Marlboro Lights, and yet the
20 Marlboro Lights were taking over more and more of the market.
21 So they were both going up. So I'm not really clear. The
22 overall Marlboro brand. I don't think we changed the ammonia
23 level in all characteristics of the brand while I was there, but
24 I do recall discussions about the ammonia in the sheet
25 materials.

1 MR. WEBB: I want to make sure. Did you get an answer
2 to your question?

3 THE COURT: I think I got what answer the witness
4 wanted to give.

5 MR. WEBB: Fine. I'll leave it there.

6 BY MR. WEBB:

7 Q. So the court understands, if we look at the cigarettes in
8 the market over the years and try to figure out which cigarette
9 has the most ammonia in it, it's not Marlboro, is it?

10 A. I'm not sure what you mean by ammonia. If you mean when we
11 burn the cigarette the ammonia we put into the gas, that's one
12 way of looking at it.

13 The other way of looking at it is what compounds we put
14 into the tobacco that can create ammonia. So that you can't
15 tell, really, unless you knew the recipes of all the cigarettes.
16 You can tell the amount that's in the gas because you can
17 measure that.

18 Q. Can I have tab 1150? Dr. Farone, this will be your
19 testimony in the Falise trial on December 15, 2000, and the
20 question was asked, "And Marlboro does not have the most ammonia
21 of any cigarette on the market. Is that right?"

22 "Answer: That's my understanding."

23 When you gave that answer, what did you mean?

24 MR. GOLDFARB: Objection, Your Honor. Again, can we
25 provide the testimony to the witness prior to --

1 THE COURT: You can hand it to him, sure.

2 MR. WEBB: Yes. Go ahead.

3 A. Let me check.

4 My recollection -- and this refers to the amount of
5 ammonia that's measured in the smoke, because without knowing
6 the recipes of the other ones, I don't know how much is actually
7 added. Let me just check.

8 Q. I actually don't know what you meant. You can tell me what
9 you meant. Go ahead and look at your testimony to see if it
10 helps you understand it better.

11 A. What page is this?

12 Q. This is on page -- what page is this on? It's on page 1955.

13 A. Okay. Yes, this relates to the amount. If you analyze in a
14 chemical device the amount of ammonia that's in the smoke, you
15 can report -- some of the reports actually give you all the
16 different gasses that come out of the smoke.

17 So this relates to the amount of ammonia in the smoke,
18 not what they actually put in cigarettes because I didn't have
19 any way of knowing that one.

20 Q. That's fine. So that -- actually, so I'm clear. As far as
21 cigarettes on the market and what cigarettes have the most
22 ammonia in the smoke that reaches the smoker, Marlboro is not
23 the highest; is that correct?

24 A. That's -- well, I don't know if it is today, but when I've
25 looked before Marlboro is not the highest.

1 Q. In fact, let's go to the next question, the next question on
2 that same page.

3 "Marlboro does not even have the most ammonia of any
4 Philip Morris cigarette on the market. Is that right?"

5 When you answered the question "that's correct," you
6 were also referring to the smoke received by a smoker?

7 A. Yes.

8 Q. Now, as I understand your testimony, it's your testimony
9 that ammonia raising the pH of cigarette smoke; is that correct?

10 A. No. My testimony is that it can if you don't do anything to
11 offset the pH by -- I mean, ammonia is being ammonium compounds.

12 So, for example, if I add urea and I burn that, that
13 would increase ammonia, but if I add urea and at the same time I
14 add citric acid, which is like found in lemon juice, then even
15 though I've added more urea I don't change the pH and I don't
16 change -- it's a very complicated thing.

17 But whenever you add ammonia without making any other
18 changes and you don't already have a base of acid in there that
19 will counteract what you're adding, you will see, because it's
20 fundamental chemistry, an increase in pH and with that an
21 increase in the amount of freebase ammonia.

22 Q. Maybe I misunderstood. I thought in your direct examination
23 you were trying to communicate to the court that in making
24 Marlboros, for example, Philip Morris intentionally somehow uses
25 ammonia to raise the pH, thereby increase what you call free

1 unprotinated nicotine and thereby have more impact on the smoker
2 and, therefore, Marlboro is somehow the leading cigarette in the
3 market because of that.

4 A. Part of that's true. I mean, that's a long line of
5 sequence. Up until the last one, we're fine.

6 I mean, basically the studies have shown that if --
7 see, Marlboro -- taking that as a separate item in and of itself
8 going back to the 50s when you start putting the cigarette on
9 the market, you look at the pH of things back in the 50s. They
10 were down around 5.7, 5.8, into the 60s and 70s when the brand
11 starts to take off, it goes up to 6.2, 6.3.

12 So in that period of time you've increased it, you end
13 up with more freebase nicotine. You haven't changed it. It has
14 not been changed to my knowledge since then, so that stays
15 pretty much the same.

16 I mean, the Marlboro Regular I don't think has changed
17 substantially since 19 -- early 1970s. But you have to look at
18 the entire history is what I'm talking about.

19 And if you look at other cigarettes, like lower
20 delivery cigarettes, you will see the pHs are higher, up to 6.8.
21 So there's this basic science that was used. We've indicated
22 already it was known. And we are using that to change the
23 characteristic as we reduce tars.

24 Q. I want to make sure I understand what you're saying.

25 When Philip Morris started using ammonia in the

1 manufacturing process in 1950s to make reconstituted leaf, it's
2 your testimony that the people at Philip Morris put the ammonia
3 into that reconstituted leaf so they would raise the pH, free up
4 nicotine and have an impact on the smoker. Is that what you're
5 trying to communicate to the court?

6 A. Well, with the exception that it was blended leaf, not
7 reconstituted. Reconstituted leaf is the sheet making. But in
8 the early days of Marlboro, somewhere in the '50s and '60s, it
9 had all been done by the time I got there.

10 Ammonia was added to the products which raised the pH,
11 increased the subjective response, increased the freebase to
12 protinated nicotine, and that was believed by many, many people
13 at Philip Morris, including most of the scientists as being one
14 of the significant features of Marlboro as other tobacco
15 companies from documents I put in here. I mean, BMW thought so,
16 RJR thought so. It's based on that science.

17 Q. Just so I think -- whenever Philip Morris first started
18 putting ammonia in cigarettes in the late 1950s you did not work
19 at Philip Morris; is that correct?

20 A. That is correct.

21 Q. And so I looked throughout your testimony looking for a
22 document. Did you find any documents that indicated to you that
23 when Philip Morris put ammonia into the manufacturing process,
24 it did so for the purpose of raising free nicotine and impacting
25 the smoker?

1 Did you find documents that you've not included in your
2 testimony?

3 A. I'm not sure I understand what you mean.

4 You mean did I find a document instructing people to do
5 that for the purpose of --?

6 Q. I'm basically -- I'm trying to find out -- you're in here as
7 an expert giving an opinion to the court about something that
8 happened in 1950s, and so I'm asking you, you weren't there in
9 the 1950s, so I'm assuming the next level of knowledge would be
10 you've read a document that shows that the gentleman or woman,
11 the man or woman, or whoever, decided at the company to put this
12 product in, ammonia in, they did it to raise the impact on
13 smokers. That's what I'm looking for.

14 MR. GOLDFARB: Objection, argumentative, Your Honor.

15 THE COURT: Overruled. It's a very straightforward
16 question.

17 A. I don't know the person who did it. I do know that many
18 times while I was there it was studied. We did studies on
19 adding ammonia impact.

20 You can find -- I've included in my reliance set dozens
21 of documents that discuss it. So it certainly was known by all
22 the chemists there. It certainly was known to me.

23 Q. I don't mean -- can you answer my question?

24 A. Well, I'm not sure I understand it.

25 Q. I'm going to ask it again.

1 A. The person --

2 Q. I want to know what documents you've looked at that were
3 prepared by Philip Morris that you can call to the court's
4 attention back in the 1950s that show you or tell you as an
5 expert that Philip Morris put ammonia in cigarettes to raise
6 free nicotine and have a greater impact on the smoker. Can you
7 identify such documents?

8 A. I'd have to look through the documents to see whether that
9 was discussed in some of the Begley memos. I mean, it's been
10 discussed throughout the Philip Morris' time, but as I sit here
11 right now I cannot think of a document, which is what I think
12 you're getting at, that instructs people to do that specifically
13 for the purpose of what I've said.

14 Q. Thank you.

15 A. I can agree with that.

16 Q. Now that we have that resolved, let's go back to the basics.

17 I take it, as I understand this thing, or this --
18 strike that.

19 As I understand the issue we're dealing with here, the
20 first step is we're going to have to figure out whether or not
21 adding ammonia to Marlboro raised the pH of Marlboro up to a
22 level or it started releasing more free nicotine; is that
23 correct.

24 A. No.

25 Q. We are not trying to figure that out?

1 A. No. We know that if the pH is higher, the level of free
2 nicotine increases. This is basic chemistry.

3 You don't have to figure it out. If you increase the
4 pH, you will increase the level of free nicotine. That's a
5 basic chemical thing. And I could -- you know, chemistry class
6 I could explain it to freshman chemistry students.

7 Q. I'm going to try to avoid that, but if that's where we have
8 to go. Let me ask you this.

9 Do you agree with me that there's a lot of literature
10 written that indicates that the pH of cigarettes in the United
11 States over the past many, many years has stayed constant
12 between 5.5 and 6.5?

13 Do you agree with that?

14 A. That's 10 times as much. Yes, I agree with that. That's a
15 very huge range.

16 Q. I'm going to start with that, and let's take it --

17 A. It's the Rickert scale. Yes, I agree. It goes up to 6.8,
18 though.

19 Q. Actually, let me just show you what -- Dr. Benowitz, you
20 recognized Dr. Benowitz is a fairly knowledgeable person in the
21 addiction and nicotine field?

22 A. Not a chemist. I do not recognize Dr. Benowitz as a
23 chemist.

24 Q. Let me ask you this. I'm going to show you Dr. Benowitz's
25 testimony from the ironworkers' trial. Could I have tab 1457

1 called up, please? And I'm just going to ask you if you agree
2 with Dr. Benowitz.

3 "You have written previously that the range of smoke pH
4 for American blended cigarettes is between 5.5 and 6.5; isn't
5 that correct?"

6 And he answered, "Yes."

7 "And the Surgeon General has reported something
8 similar; isn't that correct?"

9 "Answer: Yes."

10 "Question: And virtually every major commentator,
11 Dr. Hoffman, Dr. Morie, and various other people, all pretty
12 much agree that American commercial cigarettes have a pH between
13 5.5 and 6.5; is that correct?"

14 "Objection."

15 Answer by the witness, "Yes."

16 Now I want to stick with that. Do you agree with
17 Dr. Benowitz and the Surgeon General and Dr. Hoffman and
18 Dr. Morie that the statement that the smoke pH for American
19 blended cigarettes has remained between 5.5 and 6.5?

20 MR. GOLDFARB: Objection again, Your Honor. If they
21 are going to show Dr. Farone testimony from Dr. Benowitz, I
22 think it's fair to provide him the testimony so Dr. Farone can
23 also evaluate the context in which Dr. Benowitz was giving the
24 testimony.

25 THE COURT: Do you have it to show him?

1 MR. WEBB: I'm sure. I'll try to get it.

2 BY MR. WEBB:

3 Q. Do you disagree with that?

4 A. Well, based on what I know sitting here today, I do, yes.

5 But at the time that Dr. Benowitz made this statement,
6 I would say that it was probably true for 90 percent of the
7 cigarettes on the market.

8 There are some that are up to 6.9, and I know of one or
9 two that are down to 5.3, but you have to remember we are
10 talking about a way of measuring here and that's not described.

11 Is this a pH on the pad? Is this collecting the smoke
12 and then sticking it in?

13 If he's talking about some standardized technique, you
14 get different numbers depending on how you measure. But I would
15 agree generally with his range.

16 Q. That's fine. I'll take that. Now, we have that general
17 agreement.

18 Do you also agree with the Surgeon General that if
19 mainstream smoke is below 6.5 there is virtually no free
20 nicotine?

21 A. No, I don't agree with the Surgeon General.

22 You know, it's basic fundamental chemistry, there's
23 always some. The question is how much. There's a simple
24 calculation.

25 Dr. Morie did it in his papers in I think the late

1 '50s. And I teach this calculation to chemistry people that come
2 to work for me, for all of these types of issues, not just for
3 nicotine.

4 Q. Let me start -- let's just see what the Surgeon General says
5 anyway.

6 Can I have the 1979 Surgeon General's report which is
7 joint Defense Exhibit 004702. Can I have that called up?

8 Have you read the 1979 Surgeon General's report?

9 A. Yes, I have.

10 Q. In connection with -- I take it in connection with being an
11 expert, you've read it several times, is that fair to say?

12 A. I read it when I was at Philip Morris, too.

13 Q. Okay. Now, can I go to the page that's -- it's page 14-108
14 which is tab I believe 1668. And I've handed it to you so you
15 can read it in your own hand.

16 But I guess that's a little too big.

17 MR. GOLDFARB: Your Honor -- excuse me, counsel. I
18 want to note for the record that it's just an excerpt from the
19 Surgeon General's report, and the witness is looking at the
20 excerpt, but there may be other parts of the report that are
21 relevant to his testimony.

22 THE COURT: But he says he has looked at the report.
23 Why don't we see if we can proceed.

24 BY MR. WEBB:

25 Q. The portion I culled out is the Surgeon General in this

1 report said to the American public, "Since cigarettes in the
2 United States and in most foreign countries are made of
3 flue-cured tobacco are blends with flue-cured tobacco as a major
4 ingredient or in a few cases are blends with Turkish tobacco,
5 the pH of the resulting mainstream smoke is below 6.5 and thus
6 essentially contains only protinated nicotine."

7 Do you see that statement?

8 A. I do.

9 Q. So I want the court to understand. As I understand your
10 testimony, there's basically two types of nicotine. There's the
11 protinated nicotine, and then the other form is called
12 unprotinated nicotine, which is what you call free nicotine; is
13 that correct?

14 A. Yes.

15 Q. And so at least the Surgeon General believes that -- do you
16 agree the Surgeon General at least states here that if
17 mainstream smoke is below 6.5, it essentially contains only
18 protinated nicotine. You do see that?

19 A. I see that.

20 Q. Now, as far as Marlboro is concerned -- I read your entire
21 testimony over because I wanted to find out what you were going
22 to tell the court is the pH level of Marlboro. Do you know what
23 it is?

24 A. It depends on the measurement technique you use. If you
25 read Dr. Pankow's articles you come up with one number. If you

1 use a pH meter on the pad. And the major point we have to
2 understand is the concept of how much it takes freebase nicotine
3 because it's an equilibrium.

4 So the Surgeon General -- whoever wrote this for the
5 Surgeon General is correct. Essentially is a -- is a very
6 interesting word because, for example, if someone shoots 100
7 bullets at you and 99 of them miss you --

8 Q. I'm sorry, but my question, I asked you a very simple
9 question. Do you know what the pH is of Marlboro smoke?

10 A. And I answered, I thought, by saying that there are various
11 numbers, given by different methods that have been used. So if
12 you tell me the method you're talking about, then maybe I can
13 give you an estimate.

14 Q. Well, first of all, let's take Philip Morris. I take it if
15 Philip Morris -- if the entire key to the success of this
16 product, what some have called the most successful consumer
17 product in American history, Marlboro, if it's all dependent on
18 pH, I assume there must be a ton of Philip Morris' documents
19 measuring its pH?

20 MR. GOLDFARB: Objection, Your Honor. It's a
21 mischaracterization of the witness's testimony.

22 THE COURT: Overruled.

23 Go ahead, please.

24 A. I don't know where I've ever said that it was dependent upon
25 pH. It's a factor. It is a factor.

1 This isn't the -- it was one of the -- what I said was
2 they considered it to be a secret because that's one of those
3 factors that other people outside the industry don't understand.
4 The pH, as measured by Philip Morris, to answer your question,
5 at the time I was there was about 6.25. I think it was between
6 6.2 and 6.3.

7 Q. 6.2 and 6.3?

8 A. Something like that. That's my recollection.

9 I'd have to -- on my reliance set I have what are
10 called CI reports done by Mr. Wakeham and in some of those
11 reports they reference pHs.

12 Q. It's certainly under 6.5?

13 A. Oh, I agree with that.

14 Q. So at least according to the Surgeon General, the Marlboro
15 cigarette, 6.2, would have virtually no free nicotine; is that
16 correct?

17 A. No. It says it contains essentially only protinated
18 nicotine, and I agree with that.

19 I mean, I think it's 97 percent or -- we have to go
20 back and look at the numbers. There's curves in various books
21 like the 1972 RJR reports did one curve.

22 The statement is true on its face, but what it
23 overlooks is the fact that tiny bits are very important because
24 when they are removed they are immediately replaced due to
25 equilibration.

1 Q. So we've established that based on what the Surgeon General
2 says -- strike the question.

3 By the way, the 6.2, what you recall -- are you
4 recalling that from reading documents while you were at Philip
5 Morris?

6 A. I'm recalling it from the -- the 6.2 and 6.3 I'm recalling
7 it from the cigarette information reports that were done by --
8 we had a group that did it at the time I was there and I've
9 subsequently seen other reports, and if you measured a different
10 way, you get different numbers, but that's what Philip Morris
11 thought it was at that time.

12 I think 6.3 is probably the highest number I saw while
13 I was there.

14 Q. By the way, just so -- as you reviewed evidence in this
15 case, have you ever seen any evidence that Philip Morris even
16 measures its pH of its smoke on any type of regular basis?

17 A. No, I don't think they do on a regular basis.

18 Q. And my question is if Philip Morris doesn't even -- if the
19 key -- strike the question.

20 Can I come back to your -- are you telling me now that
21 it's not the key to Marlboro's success?

22 A. There is no single key to Marlboro's success.

23 I'm telling you that it was a factor that was
24 considered important in the flavor of that product; not only by
25 Philip Morris, but by every other cigarette industry, in the

1 industry -- company that evaluated that product. That's not a
2 secret either.

3 Q. I want to look at your testimony again. Maybe we should
4 change it. Could I have tab 1456, Dr. Farone's direct testimony
5 on page 95, which I just had up on the screen.

6 "Did Philip Morris use ammonia to exploit its
7 properties?

8 "Yes. I heard at Richmond meeting, speeches and
9 discussions when I was there, Philip Morris considered its
10 blended leaf, or BL, to be a secret to Marlboro's success
11 because of the ammonia added to the BL."

12 A. That's absolutely true.

13 The point that you made before was that this may only
14 be a small difference, that ammonia -- I mean, we were talking
15 about the chemical effects.

16 This is a discussion, Did they actually use ammonia to
17 exploit its properties? Yes, they did. They added it to this
18 product.

19 And while I was at Philip Morris we tried many times to
20 get them to replace this BL, which is highly toxic, with the RL,
21 which is less toxic, and in every instance we were not allowed
22 to tamper with that BL because of the belief among senior
23 management, Hugh Cullman, Joe Cullman, George Weissman, Cliff
24 Goldsmith, that that material was a key part of Marlboro's
25 success.

1 Q. Here is my question. If adding ammonia to Marlboro's
2 manufacturing process is one of the keys to its success, you
3 just told me a moment ago Philip Morris doesn't even measure pH
4 on a regular basis; is that correct?

5 A. They don't measure nicotine on a regular basis; but you know
6 what it is because you measure it when you need to measure it,
7 you do studies, and after that you know -- if you know the
8 alkaloid content, if you know the soluble ammonia content, you
9 measure it when you need to measure it.

10 So yes, they don't measure it on a regular basis.

11 Q. Have you seen lab reports indicating the pH of Marlboro is
12 around 6.0?

13 A. There were some times when it was that low. I agree with
14 you.

15 Q. Can I have JD 041895 which will be tab 1669? If I could
16 have. And, Grace, I want to give that exhibit to the Doctor if
17 you have it there. I'm sorry, it's 41895. I simply have -- can
18 I pull up that first page of the document? Can you do that?

19 This is a document I think, if I can read that -- can
20 you read that date on the front of it? Is that 1997?

21 A. It's '97. Yes, I'm familiar with this document.

22 Q. I thought you would be.

23 This, as I understand it, it's a project report
24 prepared for the Massachusetts Department of Public Health by an
25 independent laboratory called Lab Stat, Incorporated. Do you

1 see that?

2 A. Yes.

3 Q. Are you familiar with that organization?

4 A. Yes, sir. I've actually communicated with the author of
5 this, Dr. Rickert.

6 Q. And this was prepared by Dr. Rickert to be provided to the
7 Massachusetts Department of Public Health regarding a partial
8 characterization of 10 common brands of American cigarettes; is
9 that correct?

10 A. That is correct.

11 Q. If we go into this document to page 12 we will come across
12 Table 2. And bear with me. Have you found that?

13 A. Yes.

14 Q. According to Lab Stat, Incorporated, the characteristics of
15 cigarettes, if you go to Marlboro and if we go across, it says
16 the Marlboro pH -- average pH for Marlboro, do you see that
17 number two up there?

18 A. I do.

19 Q. Is 6.028. Do you see that?

20 A. Yes.

21 Q. Have you seen other readings that show Marlboro is around
22 the 6.0 range in pH?

23 A. This was not done by Philip Morris.

24 Q. No. Have you seen other documents prepared by other
25 companies or anyone showing 6.0?

1 A. It depends greatly on how you do it, but if you look at the
2 numbers in this list, it shows you that as you go down in
3 delivery of the cigarette -- for example, Marlboro Lights is
4 6.128, and Carlton Ultra is 6.187, and they are very tightly
5 bunched.

6 And I've talked to Dr. Rickert about this, and I'm not
7 sure exactly that I recall, but there are differences between
8 the way he measured pH, the way Philip Morris does it, the way
9 Reynolds does it, and the way Dr. Pankow did it. So the exact
10 number is not as important as the differences between them
11 because it's showing you whether you have more or less.

12 Q. But if it's somehow the pH of Marlboro that got raised which
13 then freed up all of this nicotine that went rushing to people's
14 brains and addicted them, why would Marlboro be down on the low
15 end of this group?

16 A. Okay. These are very tightly bunched, as you can see. The
17 basis of how he measured them, I don't know.

18 The ranges we have indicated before, I thought we had
19 agreed was between 5.5 and 6.5. And the question -- not the
20 question -- the point that I'm making is give me the number for
21 the Marlboro in 1952, 1953, 1954, and we track it on up, and
22 that pH goes up as the ammonia materials are added.

23 And the freebase nicotine -- as you know from recent
24 studies have been done where you measure the free base directly
25 -- goes up as you add these materials to it. And it's as much

1 as 10 times more than reference cigarettes to freebase and
2 Marlboro.

3 Q. Doctor, my question was -- and I don't think you answered
4 it, with all due respect -- is that if it's somehow Marlboro and
5 Philip Morris put ammonia into the manufacturing process, jack
6 up the pH, free up all of this nicotine that goes into people's
7 brain, and that's why it's successful as opposed to other
8 cigarettes on this chart, why is Marlboro at the low end of the
9 range on pH?

10 A. Okay. I'm not going to answer -- I mean, I don't understand
11 the question, much less...

12 The other materials on this chart that show higher
13 levels are lower delivery cigarettes. I mean, I don't see a
14 reference here to Winston versus Marlboros, for example. I
15 already pointed out the lights is higher. If you look at the
16 ultralights they are 6.3, they are way higher, and we know that
17 those materials don't -- those cigarettes do not sell as well as
18 Marlboro.

19 I'm not saying pH -- obviously, if pH was the only
20 indicator of market success, Merit and Camel Lights,
21 Ultralights, and Merit Ultralights would be the best selling
22 product. That's not the only indicator.

23 It is a fact, however, that when you add ammonia to
24 products, a specific product, you increase the freebase to
25 protinated ratios even though it's only a small amount of

1 freebase and that increases the impact. I mean, I can't change
2 that. It's a chemical fact.

3 Q. I guess on that issue, then, as far as this theory of yours
4 that you've articulated in your expert testimony here. Let's
5 find out as far as what you base this on.

6 Am I correct you have never conducted any study or
7 experiments to demonstrate that cigarettes with ammonia are more
8 addictive or impactful than cigarettes without ammonia or less
9 ammonia? Is that fair to say?

10 A. I have not done addiction research, that's correct.

11 Q. And you also -- you've not conducted any studies to show
12 that a cigarette that delivers more free nicotine is more
13 addictive than a cigarette that delivers less free nicotine; is
14 that correct?

15 A. That's correct.

16 Q. And you're actually not aware -- not only have you not done
17 any studies, you're not aware of anyone doing any studies that
18 actually show that increased free nicotine causes cigarettes to
19 be more addictive to smokers; is that correct?

20 A. As far as I know, free nicotine is accepted as being more
21 addictive just like it is for every drug of abuse which is an
22 alkaloid. And I can't recall anybody doing a specific study
23 where they give free versus bound cigarettes.

24 You know, I mean there's some indications from some of
25 the injection studies, to patch studies, the pH of mouth -- what

1 do they call that? Chewing tobacco and things like that. But I
2 don't know of any cigarette studies, I agree.

3 Q. Okay, thank you for the answer.

4 I take it, strike that. Are you aware that
5 Dr. Benowitz is going to be called as a witness by the
6 government here, who is an addiction expert, are you familiar
7 with his testimony where he has stated that until those studies
8 are done you can't reach the opinion that you've given this
9 court today?

10 MR. GOLDFARB: Objection.

11 THE COURT: What basis?

12 MR. GOLDFARB: The basis. Again, Dr. Farone is not
13 being offered as -- he has not testified in his written direct
14 examination that the pH or the levels of free nicotine caused
15 things to be more addictive in terms of a behavioral component.

16 He has testified about the chemical, the physical
17 chemistry of the smoke aerosol and the chemical and biochemical
18 effects of free nicotine.

19 However, again, this is getting into an area, when
20 you're talking about somebody being more addictive, that
21 Dr. Farone is not being proffered as an expert in this case.

22 THE COURT: The question is simply whether he's aware
23 that Dr. Benowitz can agree with him as to his conclusion
24 because enough study hasn't gone into the area, and I think
25 that's a fair question at this point.

1 You may answer.

2 A. Dr. Benowitz does not disagree with my conclusion that
3 raising the pH increases the level of free nicotine. That's my
4 conclusion.

5 I haven't concluded that it's more addictive. And I've
6 talked with Dr. Benowitz and Dr. Pankow and we are all in
7 agreement, because the basic chemistry as taught in freshman
8 chemistry courses, which every chemist at Philip Morris knows,
9 is that if you increase the pH you increase the amount of free
10 nicotine. So that's an agreement between Dr. Benowitz and I.

11 Q. I may be able to shortcut this questioning, too, then.
12 Maybe I misunderstood.

13 Are you acknowledging as far as what you're
14 communicating to the court as an expert that just because
15 there's more free nicotine you agree that there's no study or
16 evidence to show that that makes it more addictive? Is that
17 correct?

18 A. I think I've agreed with that just 10 minutes ago, yes.

19 Q. And -- yes, I accept that.

20 THE COURT: Well, then, if that's not what you're
21 saying, why do you have the opinion that the scientific staff at
22 Philip Morris, back when you were there, considered at least one
23 of the secrets of Marlboro's success to have been attributable
24 to the amount, or not just the amount, but to the addition of
25 ammonia to the blended leaf.

1 THE WITNESS: When you add ammonia you end up with more
2 of this freebase -- it's like freebase cocaine -- and you absorb
3 it all, but it gets to your brain quicker.

4 It's the difference between freebasing a drug and not
5 having a freebase drug. And in a sequence, here I have nicotine
6 and I add a proton to it and I make freebase nicotine. Freebase
7 nicotine goes away when I have an acid condition.

8 If I do something to decrease the acidity, increase the
9 base, I get more free nicotine. We know chemically,
10 fundamentally, that free nicotine transports across a cell much
11 more rapidly. We had evidence that it's not --

12 THE COURT: Could I interrupt you for a minute?

13 Is what you're saying, then, that the reason that
14 ammonia or the addition of ammonia to the blended leaf is a
15 secret to Marlboro's success is because the smoker receives the
16 impact of the nicotine so quickly rather than that the smoker is
17 either getting addicted or getting more addicted to the
18 nicotine?

19 THE WITNESS: That is the conclusion that was reached,
20 and there are reference documents of electroencephalograph
21 studies which showed that, and that all relates back to the
22 chemistry. Whether that factors into increased addiction, I
23 cannot say, but it's -- all I'm speaking to is the chemical
24 basis of what the chemist felt was the reason for that effect.

25 THE COURT: So you are really focusing in your

1 testimony on the speed of the impact in the freebase nicotine
2 which is freed up because of the addition of the ammonia. Is
3 that a fair statement?

4 THE WITNESS: Yes, that's a fair statement.

5 BY MR. WEBB:

6 Q. Based on that clarification, or questions, then I want to
7 make sure I understand, because you told me that it does not --
8 you don't have any studies or evidence that it increases
9 addiction. But are you telling me that there's more -- that
10 there's more absorption?

11 A. No, not more, faster. It goes through the cell wall faster
12 because it is more hydrophobic. The cell walls are basically
13 oily and it goes through faster.

14 Freebases of all kinds have been shown to go through
15 what we call semi-permeable membranes, where that membrane is
16 oily, faster. So, this is a chemical thing that I'm talking
17 about.

18 I could actually -- I don't want to do this, but I
19 could explain it in three lines on a chart with some notation.

20 But the point is that this is very fundamental
21 chemistry, and that chemistry was applied and people felt oh,
22 yes, we all understand how it works. And if you read the
23 literature of the other companies they all felt the same thing.
24 And now we are coming forward here and we are arguing about
25 trying to apply the chemistry to addiction and that kind of

1 thing.

2 It makes it potentially more addictive because that's
3 true for cocaine and heroin and every other drug, but I don't
4 know that that makes the Marlboro more addictive than say the
5 Winston or the Camel.

6 Q. So please tell me what clinical studies have been done that
7 you have seen that support what you just stated that Marlboro is
8 actually -- is more quickly sent to the brain? Just tell me
9 what study has been done.

10 A. I don't know of a study with Marlboro versus say -- the
11 reference that we want to look at, Dr. Pankow says there's 10
12 times the amount of free nicotine in Marlboro than a Kentucky
13 IR1 reference cigarette.

14 I don't know of any clinical study between any of those
15 pairs of cigarettes to show which of them have stuff going to
16 the brain faster.

17 Certainly you can't make a judgment that the IR1 would
18 be -- I think that was the IR4F, but whichever one he used, but
19 that cigarette would be an equal seller to Marlboro. I mean, we
20 don't have information on that. This is chemistry.

21 Q. In fact, isn't that what Dr. Benowitz has testified, that
22 until these clinical studies are done, your testimony that it's
23 reaching the brain more quickly, there's no studies to support
24 that. Is that correct?

25 A. All there is to support it is basic fundamental chemistry on

1 freebase chemicals, which is known to everyone who has dealt
2 with pharmacological agents.

3 So, he's saying that we don't know what effect that
4 has. He's not saying that it isn't true or it doesn't happen.
5 He is saying we don't have any studies that say whether that's
6 an important effect in addiction.

7 Q. Actually, what Dr. Benowitz says -- let's show you what he
8 says. Could I have tab 1162 which is Dr. Benowitz' testimony in
9 the ironworkers' case on December 17, 1998.

10 Do you agree Dr. Benowitz clearly had more experience
11 as, in the addiction field than you have?

12 A. Dr. Benowitz deals with addiction on a daily basis, not from
13 a chemical effect, but from the human psychological
14 pharmacological effect. So yes, he certainly has.

15 Q. I want to just find out. When Dr. Benowitz was asked this
16 question --

17 THE COURT: Mr. Webb, I hate to bring up the rules of
18 evidence, but aren't you trying to impeach this witness with the
19 prior testimony of someone who hasn't even yet come before this
20 court to state what their views are?

21 MR. WEBB: Actually, I want to find -- I'm only trying
22 to find out if he agrees -- he may -- I don't know whether he's
23 going to agree or disagree with this statement here and I'm
24 trying to find out if he does or he doesn't.

25 As an expert, I think I can call this to his attention

1 and find out if he agrees or disagrees with Dr. Benowitz.
2 That's all I'm trying to do.

3 THE COURT: Of course, we don't know that this is
4 Dr. Benowitz' view in this case at this time.

5 MR. WEBB: I acknowledge that. I don't know that. But
6 all I have is his prior testimony.

7 THE COURT: I'll let you do it for the record. I'm not
8 sure it's probative, but I'll let you establish it. Go ahead.

9 MR. GOLDFARB: Your Honor, we will second your noting
10 of the improper impeachment.

11 BY MR. WEBB:

12 Q. "Question: Now you previously testified, if I understand
13 your testimony correctly, that it has not been demonstrated to
14 your satisfaction, in fact, you would be skeptical that this
15 theory that ammonia can be used in presmoked pH so as to
16 increase the ratio of free-to-bound nicotine to enhance
17 bioavailability is biologically possible in the human system.
18 Is that still your opinion?

19 "Answer: Well, you've stated a lot of things there.
20 What I basically said is that I'm skeptical that there is a
21 significant change on rate of systemic absorption.

22 "Now it's clear that pH affects the ratio of bound,
23 unbound, and it's certainly -- it has sensory effects. It's
24 possible that it could have an effect on absorption rate, but
25 until studies are done, I was personally skeptical whether that

1 would occur."

2 My only question to you is: Do you agree with
3 Dr. Benowitz' testimony?

4 MR. GOLDFARB: Objection, Your Honor. This question
5 has been asked and answered specifically with respect to
6 Dr. Benowitz already. And again we object to it's improper
7 impeachment.

8 THE COURT: He may answer if he can figure out the
9 question.

10 A. First of all, I don't know what presmoked pH is, but I think
11 I understand generally what Dr. Benowitz is saying and he's
12 saying he agrees with me.

13 Q. He agrees with you that on the rate of absorption until
14 studies are done he is skeptical?

15 A. That's his opinion. What he says where he agrees with me,
16 now it's clear, he says, that pH affects the ratio of bound,
17 unbound, and it certainly, it has sensory effect.

18 THE COURT: At this point, everyone, I am going to jump
19 in.

20 We are arguing about what poor Dr. Benowitz said in
21 some prior deposition or trial testimony, I'm not sure which.
22 It's just not useful. It's not getting us anywhere.

23 MR. WEBB: I'm done.

24 THE COURT: Okay.

25 BY MR. WEBB:

1 Q. Let me go to another subject. Nicotine manipulation that
2 you've talked about during your direct examination.

3 In your direct examination -- strike the question.

4 Would you please define for me and the court what do
5 you mean by the term nicotine manipulation?

6 A. To do something to change the amount of nicotine that comes
7 off a burning cigarette to make it different than what it would
8 be if you just took tobacco wrapped it up, put it in a rod, lit
9 that up, and let the nicotine go where it may go. Okay.

10 So nicotine manipulation deals with making specific
11 changes in that design to make the nicotine go where you want it
12 to go as opposed to where it would go by itself without changing
13 the design.

14 Q. So if I understand it, you testified yesterday -- and I
15 certainly don't intend to go back through it -- that while you
16 worked at Philip Morris you clearly were working on safer
17 cigarette projects that would lower both tar and nicotine; is
18 that correct?

19 A. Yes.

20 Q. And the fact we went through the data, there's no -- it's
21 known to the world that the tobacco companies can clearly
22 manipulate nicotine because they sell a product as high as
23 Marlboro with 15 -- strike that.

24 What's the Marlboro nicotine level?

25 A. 15 to 16, the Marlboro Regular Red?

1 Q. The nicotine.

2 A. Nicotine is one and a half.

3 Q. One and a half?

4 A. No, it's 1.2, maybe, to point 8. I'd have to look it up.

5 Q. What's the lowest it goes?

6 A. It's point 06 of 15, which I think puts it at 1.1, something
7 like that. One to 1.1 nicotine.

8 Q. So there's no question that Philip Morris and the other
9 companies have developed techniques that can affect the level of
10 nicotine in cigarette products; is that correct?

11 A. Absolutely, and they can manipulate it anyway they want.

12 Q. Fine. Let's talk about that while you were there.

13 As I understand it from your past testimony, I think
14 you touched upon this yesterday, you actually believe it would
15 be a good thing for a tobacco company to find a successful way
16 to develop a commercial cigarette that alters the natural tar
17 and nicotine ratio by lowering the tar to a low level but
18 maintaining the nicotine at a high enough level to satisfy the
19 desires of cigarette smokers; is that correct?

20 A. That is correct.

21 Q. And so while you were at Philip Morris you actually thought
22 that would be a good way to design a cigarette; is that correct?

23 A. That is a way to do it, to reduce the toxic materials and
24 provide enough nicotine. That's consistent with the tobacco
25 working group that we discussed a little bit earlier. It's

1 consistent with what some of the other people had recommended
2 over the years.

3 Q. So, as you define the word "nicotine manipulation," what you
4 believe -- you believe nicotine manipulation is a good thing?

5 A. Depends on how you use it. It can be a good thing. If you
6 manipulate nicotine to reduce toxic chemicals it can be a good
7 thing. If you manipulate nicotine without the consequent
8 reduction of the toxic chemicals, then it's not a good thing.
9 It's just simple.

10 THE COURT: But you've testified earlier that nicotine
11 itself has serious impacts on heart conditions; isn't that
12 right?

13 THE WITNESS: That is right. So the next step after
14 you change the nicotine is you have to use the analog. That's
15 why we had that program going. It's a two-step process.

16 We get rid of the cancer and the COPD and then you work
17 on the cardiovascular effects.

18 MR. WEBB: Do you want me to go on?

19 THE COURT: Yes.

20 BY MR. WEBB:

21 Q. But the manipulation of nicotine that you actually supported
22 at Philip Morris was to raise the nicotine in a way that was
23 different than its normal ratio to tar; is that correct?

24 A. That is correct.

25 Q. And you worked -- strike the question.

1 Now, one other point on nicotine manipulation. I think
2 this can be short.

3 You are aware of allegations that at least have been
4 made that Philip Morris spiked cigarettes with extra nicotine,
5 which I think is referred to as exogenous nicotine, that was not
6 in the plant when Philip Morris purchased it. Are you generally
7 aware of those allegations?

8 A. Well, I've heard rumors that such allegations. No one has
9 ever made that allegation specifically to me, so --

10 Q. So we can lay it to rest. Based on your years of experience
11 at Philip Morris, do you agree that as far as that is concerned,
12 Philip Morris has never added extra or exingist -- exogenous, I
13 think it is, nicotine to the product; is that correct?

14 A. Well, to any product that's sold, because experimentally we
15 did. But as far as I know there's been no purchased nicotine
16 added, except maybe incidentally in tobacco flavors they may
17 have bought and added to something from the outside. But I
18 think that's all been covered in my original discussion with
19 FDA. I never have accused any cigarette company of going out
20 and buying nicotine and stuffing it in cigarettes as an extra --

21 Q. And it didn't happen while you were at Philip Morris, did
22 it?

23 A. It did not.

24 MR. WEBB: Your Honor, I think I'm finished.

25 THE COURT: I think this room is finished, from looking

1 at everybody.

2 Dr. Farone, you've probably exhausted everyone, at
3 least their brains. Thank you. You may step down for now.

4 We will break a little bit early. We will start, of
5 course, 9:30 on Tuesday.

6 Who is going to start?

7 MR. MINTON: I'll be --

8 THE COURT: Approximately an hour; is that right? Let
9 me write that down so I can hold you to it.

10 Next person?

11 MR. BIERSTEKER: Mr. Biersteker, and I will be brief.
12 I don't think very much.

13 THE COURT: And nobody else on the defense side. Oh,
14 I'm sorry.

15 MR. MARKS: Real short.

16 THE COURT: And then redirect.

17 There was something to mention. Well, I'll probably
18 think of it after we break, everyone.

19 Wednesday, we will have a different schedule. As I've
20 indicated to everyone, we will start at 9:00 o'clock. We will
21 go until, oh, no later than 12:15 everyone.

22 Yes?

23 MR. MINTON: For the purpose of --

24 THE COURT: Could you come forward, please? And for
25 our court reporter identify yourself.

1 MR. MINTON: Mike Minton for Lorillard, Your Honor.

2 For the purpose of our next witness, Mr. Orlowsky, I
3 was wondering if we could get an estimate of redirect so we know
4 when to have him here in the courtroom.

5 THE COURT: I'm not -- I don't know if we have an
6 estimate.

7 MR. BRODY: We certainly don't have an estimate. As
8 you know, under the new procedures we submitted Mr. Orlowsky's
9 proposed written direct to Lorillard on Monday.

10 We will not see whether he has any changes to that, how
11 extensive they are until tomorrow at noon.

12 THE COURT: I think you misunderstood the question or I
13 misunderstood it.

14 MR. BRODY: I'm sorry. He was talking about Farone. I
15 was jumping ahead.

16 MR. GOLDFARB: Your Honor, I'd expect no more than
17 2 hours; hopefully shorter than that.

18 THE COURT: All right. And as to Mr. Orlowsky, it's
19 too early to tell anything.

20 MR. BRODY: I was going to advise, and I had Orlowsky
21 on the brain, so I misinterpreted your question.

22 We have been advised that counsel for Lorillard will
23 probably have one to two hours of examination with Mr. Orlowsky.
24 If we finish up Dr. Farone's testimony on Tuesday morning, it's
25 possible that we would be able to finish Mr. Orlowsky in the

1 afternoon.

2 THE COURT: Wait a minute, everyone. When am I going
3 to get Mr. Orlowsky's final written direct?

4 MR. BRODY: I believe Lorillard will be filing that at
5 noon tomorrow.

6 You will also receive Dr. Gentry's written direct at
7 noon tomorrow. He follows Mr. Orlowsky. And then Dr. Harris
8 will probably come after that on Thursday.

9 THE COURT: I agreed to that. I knew there would be
10 problems with it from my perspective, but that's all right.
11 I'll work with it.

12 Okay, everybody. Everyone is excused. Thank you.

13 (Proceedings concluded at 4:21 p.m.)

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CERTIFICATE

I, EDWARD N. HAWKINS, Official Court Reporter, certify
that the foregoing pages are a correct transcript from the
record of proceedings in the above-entitled matter.

Edward N. Hawkins, RMR