IN THE SUPERIOR COURT FOR THE STATE OF ALASKA THIRD JUDICIAL DISTRICT AT ANCHORAGE

STATE OF ALASKA,)
Plaintiff,	
vs.)
ELI LILLY AND COMPANY,)
Defendant.)
Case No. 3AN-06-05630 CI	′

VOLUME 15

TRANSCRIPT OF PROCEEDINGS

March 21, 2008 - Pages 1 through 199

BEFORE THE HONORABLE MARK RINDNER Superior Court Judge

Page 2	Page 4
	OCEEDINGS
	OURT: Please be seated.
	ord in State of Alaska versus Eli
STATE OF ALASKA	any, 3AN-06-5630. We're outside
Commercial/Fair Business Section 5 the presence of	the jury. Counsel are present.
2 1001 West (M111 ende) Builte 200	re are some issues to take up.
6 BY: CLYDE "ED" SNIFFEN, JR. 7 MD LI	EHNER: Good morning,
Assistant Attorney General	e just wanted to I think we
	with respect to Patrizia
9 1401 McKinney, Suite 1800 1.0 Cavazzoni and	we wish to be heard on that.
I HOUSION, Texas / /UTU	OURT: Okay. Does the State
(510) 551 0005	nity to respond in writing or
CRUSE, SCOTT, HENDERSON & ALLEN, LLP 13 MR. SU	JGGS: I don't think we need
12 2777 Allen Parkway, 7th Floor Houston, Texas 77019-2133 14 to in writing, Yo	our Honor.
13 BY: SCOTT ALLEN 15 MR. JA	MIESON: Good morning,
(713) 650-6600 16 Your Honor. Pl	ease feel free to cut me off.
RICHARDSON, PATRICK, 15 WE're going to t	ake a little trip down memory
1037 Chuck Dawley Boulevard, Building A 18 lane as to what l	nappened, I guess.
	OURT: I'm going to cut you
17 (843) 727-6522 20 off, Mr. Jamieso	on. I read your brief and I would
	ar from is the State.
1 21	MIESON: Very good, Your
23 Honor. Lilly wo	ould like to participate to the
1 74	State has been able to
25 participate and b	penefit from the MDL proceedings.
Page 3	Page 5
1 A-P-P-E-A-R-A-N-C-E-S, continued 1	
2 MR. SU	JGGS: Your Honor, Dr.
4 PEPPER HAMILTON LLP 3 Cavazzoni's dep	
16 16 16 16 16 16 16 16 16 16 16 16 16 1	OURT: Well, let me just ask
	Hasn't the whole sort of history
	ation been done, been predicated
NINA GUSSACK / on the idea parti	cularly coming from the State
	these MDL depositions; we're
	these MDL depositions; we'll
Q Suite 201	al and we don't need to take a
Anchorage, Alaska 99503-2648	is. All we need is a few State
	ited discovery, ten, let's move
<u> </u>	ve got the whole MDL going.
12 1511 150.	rt of the whole idea being was going to use all the MDL
16.1	kind of what the
1 + +	asn't that been the whole flavor
I	s for the State to move this along
17 19 faster to get this	s done quicker, to get this
20 1:5	descriptions, to get unio
±2	ll the transcripts and the
	-
	State made in regard to that
21 22 motions that the	State made in regard to that that everybody was going to use
21 22 motions that the 23 seem to suggest	State made in regard to that that everybody was going to use there were all these depositions in

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1 predicate the management of this case based on 2 that?

MR. SUGGS: Your Honor, I don't ever remembering that we were going to waive the rules. The rules are that a deposition can be used against any party who was given notice of it and who was present and attended there. When Mr. Fibich issued the notice of the deposition, he did that as part of the MDL, not the State of 10 Alaska.

11 THE COURT: That would certainly be 12 the rules, and if we didn't have this history, I would say those were the rules and there wasn't notice. But the history seems to be that regardless of whether or not Ms. Cavazzoni or 15 16 someone was noticed on this case -- and I 17 recognize also that there have been depositions 18 in this case that were taken by lots of different 19 people. And -- but to the extent that there 20 would have been an argument that Dr. Cavazzoni 21 wasn't noticed particularly for this case, hasn't 22 it been waived by all the arguments that the 23 State has made? I guess that's the guts of the 24 issue.

1 witnesses along the way?

2 MR. SUGGS: As I read the 3 transcripts and the materials submitted with their brief, Your Honor, I don't see anything about we were somehow waiving the rules here. I

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Page 9

think the rule is very clear. I just don't see

7 that there's any waiver of it. I mean, I've

looked at the transcripts that they've attached

9 there. I have not seen anything that says we're waiving the rules here. 10

THE COURT: Wasn't there a whole 12 bunch of discussion about the need to redepose witnesses and whether you should have to ask permission to redepose witnesses or whether you should be able to designate your ten. I mean, wasn't the whole suggestion of this --MR. SUGGS: There was lots of

17 18 discussion about that, Your Honor, and lots of 19 other things but I don't see anything in there 20 that we were waiving Rule 32 in this case. 21

MR. JAMIESON: Your Honor, on that point my I be heard? It wasn't a waiver -- it was a waiver, we think. But in addition, it was the order of this Court. If you look at the

transcript from the January 8th status

Page 7

1 of the attorneys who were representing the State

MR. SUGGS: I don't think so. None

of Alaska were there in that capacity at that

deposition to represent Alaska's interest.

Moreover, they told us that they were going to

bring Dr. Cavazzoni here to testify live. They

were going to bring her here in our case in chief

and we were perfectly happy with it. And now all

8 of a sudden --

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9 THE COURT: And you told them that you weren't going to call Dr. Hopson in your case 11 in chief, and you did. So there's been some 12 changes, and my question has been all along, just 13 as it is with Dr. Hopson, what's really fair given the history and those kinds of things? And 15 given that I mean, you got ten extra depositions and if Dr. Cavazzoni had been really important for you to take, you could have retook her as 17

part of your ten, correct? 19 MR. SUGGS: We could have --20 THE COURT: And you didn't do that. 21 MR. SUGGS: We chose not to. 22 THE COURT: What I'm saying is,

23 isn't everybody on notice that all the

24 depositions in the MDL were going to be used

25 here, particularly if people were listed as conference, at page 67, which we've attached to

this brief as Exhibit C, I believe. 3 The Court: You'll participate in

4 the discovery that's part of the MDL.

5 Mr. Sanders: Is that an order or a 6 question?

7 And the Court: Both, I think. And 8 then you went on.

9 And the concern of the State at 10 that time was not that they wouldn't be able to 11 use the MDL, but that they needed to redo some

12 MDL depositions that they didn't like the way 13 that those MDL depositions were taken for -- for

14 the Alaska-specific issues or any issue at all.

They were free to go redepose ten.

They got the ten freebie rule, which is what 17 Your Honor ordered. And they could -- and

18 Mr. Sanders came back to this Court a couple

19 months later and said, you know, Your Honor,

we're -- if somebody from Texas -- he actually

21 said if somebody from Texas does this deposition

22 and I don't like it and Your Honor said, that's

23 what you got the ten freebies for. 24

And that was the order of this 25 Court. It wasn't something that happened by

Page 10 Page 12 1 accident; it happened on purpose and tremendous 1 Honor. 2 benefits have flowed to the Plaintiffs as a THE COURT: So, I mean --3 result of the discovery in the MDL. MR. SUGGS: I'm sorry, what's your 4 MR. SUGGS: Your Honor, you said -question, sir? he points to language that you said on January 5 5 THE COURT: So my question is, I 6 8th, 2007. You'll -- you will -- participate in mean, to the extent that the question is we the discovery that's part of the MDL. That 7 didn't get to use her for Alaska purposes because 7 statement was six months after the deposition of she wasn't noticed to Alaska purposes. You could 9 Dr. Cavazzoni was taken. We have an unqualified 9 have used her for Alaska purposes. You chose not 10 right to use depositions of their folks where 10 to. 11 they were represented. They do not -- under Rule 11 MR. SUGGS: Your Honor, I wasn't 12 32, they don't have the right to use depositions 12 there. Mr. Allen wasn't there representing the State of Alaska. This was June of 2006. unless the party was represented and I don't see 13 14 THE COURT: Right. But we ended 14 any order --15 THE COURT: What's Dr. Cavazzoni's 15 up -- what you just pointed out to me is we ended up with the ten freebie rule if I that's what I 16 status? 17 MR. JAMIESON: Her status? 17 can shorthand call it after she was deposed; 18 18 correct? THE COURT: Yeah. 19 MR. JAMIESON: She's not going to 19 MR. SUGGS: Yes. 20 THE COURT: So you could have gone 20 be here at trial. 21 THE COURT: Where is she? 21 back if it was critical to redepose her and --MR. SUGGS: Your Honor, we didn't 22 MR. JAMIESON: She's an employee of 22 23 Eli Lilly. 23 think we needed to redepose her because we didn't 24 THE COURT: Where is she? think she was going to be coming here because of 24 25 MR. LEHNER: She's in Indianapolis, Rule 32. I mean, Rule 32 says they can't use Page 11 Page 13 1 Your Honor. She is a single mother. She's had a 1 it unless they retook it. lot of trouble sort of scheduling. She has a 2 THE COURT: Wasn't she on the very difficult family situation. We thought we witness list from Day One? Wasn't she talked had her for a day. It didn't work out. about in the opening statement? 5 5 THE COURT: What I'm asking really, MR. SUGGS: Yeah, and they were 6 to front is there a way to do a telephonic 6 entitled to bring her live. They could have deposition of her to fill in this alleged gap? 7 7 brought her live. This is a person who's--8 MR. LEHNER: I'm not sure what the 8 THE COURT: I mean, haven't we had 9 gap is, Your Honor, because -- I mean -- it seems 9 a lot of talk about documents authored by 10 to me either we are able to use the material of 10 Dr. Cavazzoni? I'm sorry, Mr. Suggs, but if you 11 the MDL. I mean if you want to take time from 11 tell me you didn't think she was going to be here the Court to do a telephonic deposition -or wasn't going to be a witness in this case I 12 13 THE COURT: I mean if the question 13 have some problems with that. 14 is notice. If that's a problem I can cure that. 14 MR. SUGGS: Your Honor, I have no 15 15 MR. LEHNER: I don't think it's problem with her coming here at all. I would love to have her on that witness stand, Your 16 really notice, Your Honor. She was deposed twice on all of the generic issues that have been at 17 Honor. I would love to have her live. 17 18 issue in this court. She has no Alaska-specific 18 THE COURT: I understand that and I 19 information. 19 understand what's really going on here, but --20 20 MR. SUGGS: Your Honor, this lady THE COURT: If she had 21 Alaska-specific information and it was important 21 is head, I think, of global safety. 22 MR. FIBICH: Can we call a time for the State to depose, I assume that the State 22 23 would have listed her as one of your ten? I 23 out? We need to talk. Let's call a time out. 24 mean, you didn't use your full ten, did you? 24 MR. ALLEN: Can we talk? Can we MR. SUGGS: No, we didn't, Your 25 25 talk?

Page 14 Page 16 1 THE COURT: Yeah. We'll be off 1 telling the truth. 2 record. 2 THE COURT: I need to get a sense 3 THE CLERK: Off record. from the State as to what it's going to do on 4 (Discussion off the record.) rebuttal. What I'll try to do is plan this and 5 THE COURT: Mr. Suggs. even if I have to send the jury home for a day 6 MR. SUGGS: Your Honor, we have our while we take this up, but I want to do it at a objection, but we will withdraw it and let them 7 point that it makes sense, and that will depend 7 8 play Ms. Cavazzoni's deposition. on when Lilly is likely to rest and how much 9 THE COURT: Okay. Then what we 9 rebuttal the State's going to have, because that need to do is designate those portions and deal 10 10 will let me figure out when this case might with objections and all of those kinds of things 11 11 actually be going to the jury and when you will and deal with counterdesignations of which I'm 12 be doing -- I'm assuming at this point, and 13 sure there's going to be a few. please correct me if I'm wrong, that we'll have a MS. GUSSACK: I believe they've 14 whole day jointly for closing arguments and then if we have time that day, we'll instruct the jury 15 been submitted to the Plaintiffs. MR. ALLEN: Unfortunately, Your 16 and they can start deliberating. 17 Honor, there's not much. 17 If not, we'll bring them back in 18 the morning and they can be instructed and start 18 MS. GUSSACK: It's relatively brief 19 on both -- I think both sides, Your Honor. But 19 deliberating. I'll also consider, and you can we'll make sure that you have whatever is in 20 all tell me what your views on this is. 20 21 dispute. 21 Sometimes people have -- given jury instructions 22 22 before the closings and I'm willing to do that THE COURT: Okay. 23 What's the plan for today? 23 if -- I'm willing to think about that. I haven't MR. LEHNER: Your Honor, we're 24 done that in a case, but I understand why it 25 going to play depositions of Dr. Beasley and then might be a useful thing for everybody. Page 15 Page 17 perhaps a brief deposition of 20 minutes, maybe 1 MR. ALLEN: We prefer it. 30 minutes of Dr. Toleffson and then bring 2 THE COURT: I'll let everybody Dr. Baker on as our live witness. think about it for a day or so. If that's the case, we'll figure that -- what I don't want to 4 THE COURT: Okay. And again, I'll remind everybody, jury instructions. do is split somebody's -- split the closing 6 MR. ALLEN: We do -- trust me, even 6 arguments in any way at all. But if -- if we know we're going to do jury instructions and then I had to learn that yesterday. 8 MS. GUSSACK: Your Honor, on that closings and then they deliberate, start 9 9 subject, do you have in your schedule of you as deliberating, I'll let them know that on that day 10 to when next week you would want to have a 10 they're going to start deliberating, they can 11 conference on those? expect to be here the whole day. So, as soon as 11 12 THE COURT: Well, part of that will you know and let me know when you are likely to 13 depend on -- what I need to know is -- I'm be resting or what your plan is, you can let me 14 know how much you've got in rebuttal. 14 tempted to have fun with you, Ms. Gussack and I MR. ALLEN: I have 12 minutes. 15 15 guess I'll say this --16 16 MS. GUSSACK: It's Friday, Judge, MS. GUSSACK: Your Honor, we -- in 17 17 you're allowed. large measure informed by the length of cross-examination of our witnesses, we think 18 THE COURT: -- so a noncoy answer 19 about when Lilly thinks they'll be done with 19 realistically it looks like it could be Wednesday 20 their case and then a noncoy answer --20 but, you know, that's really just an estimate 21 MR. ALLEN: Judge, I'm not coy. We 21 right now. We'll certainly let you know as soon 22 22 as we know more. can say a lot of things about me; coy is not one. THE COURT: That's what Ms. Gussack 23 23 THE COURT: Well, again --24 said too. 24 MR. FIBICH: Your Honor, I do not 25 MR. ALLEN: Yeah, but she wasn't 25 expect at this time that the State is going to

Page 18 Page 20

1 call any live witnesses in rebuttal. Obviously,

2 I can be just as coy and say, well, that may

3 change. But it's unlikely. Mr. Allen has 12

4 minutes that I think you are familiar with that

5 is going to be offered in rebuttal. But we do6 not anticipate a lot of rebuttal testimony.

7 There may be some short offers, but from our

8 standpoint, we're not going to have --

9 THE COURT: So what I'm sort of 10 hearing is it's possible that the case -- the

11 evidentiary portion of the case may conclude on

12 Wednesday subject to how long the

13 cross-examination is. If you take a day and a

14 half to cross-examine somebody --

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MR. ALLEN: Did somebody do that?

THE COURT: -- I would anticipate

17 that any live witnesses the State goes on -- that

18 Lilly puts on might take that long, but the State

19 will have to decide how vigorous their

20 cross-examinations are going to be.21 MR. FIBICH: Well. Your I

MR. FIBICH: Well, Your Honor, we

22 appreciate the Court's questioning on this issue.

23 And we don't want to get into what we've been

4 told in the hall, but we need some definiteness

about when they think they're going to rest.

Page 19

THE COURT: Well, again, I

2 understand how what they say is somewhat

3 dependent on what you do on your cross. And I

4 don't know how many live witnesses we have, and

5 I've got to deal hopefully sooner rather than

6 later with any of the Cavazzoni objections and

cross-designations and those things before they

8 can cut their tape.

MR. ALLEN: I think --

MS. GUSSACK: I think we have --

11 A SPEAKER: They've given us their

12 designations.

MR. ALLEN: Objections? It's

14 unlikely I would object.

MR. LEHNER: Counterdesignations.

MS. GUSSACK: I'm sorry,

17 counterdesignations.

MR. ALLEN: I've instructed

19 Mr. Suggs because I told him I wanted him to be

20 brief like me with Dr. Baker today. He promised

21 me he would.

MR. SUGGS: Your Honor, when he

23 told me that, I laughed.

MS. GUSSACK: Your Honor, and I

25 take it also about the issue about 12 minutes on

rebuttal is something that is still being held in reserve by the Court.

THE COURT: I assume that that was a comment sort of directed on the information in the Eski deposition that I haven't let in.

6 MR. ALLEN: That was exactly what

7 it was.

8 MS. GUSSACK: So we could be

9 finished much earlier then -- by 12 minutes? 10 MR. ALLEN: Twelve minutes early.

1 MS GUSSACV: Thonk you gir

MS. GUSSACK: Thank you, sir.

THE COURT: I'll take a look at my

13 calendar with this sort of generalized schedule,

14 recognizing we're going to have to be flexible

15 and try to figure out where I may have some time.

16 What I'll do if I can, but I kind of doubt it, is

17 if I can move something in an afternoon, we can

18 take this up in the afternoon. I have a feeling

19 I'm going to have to move a lot of things and

20 that's a little more problematic. So we may just

take a morning and not have the jury come in that

22 day.

23

Anything else before we bring in

24 the jury?

Then we'll give the jury a heads up

Page 21

1 and we'll get started. We'll be off record.

2 THE CLERK: Please rise. Superior

3 Court now stands in recess.

4 Off record.

5 (Break.)

6 (Jury in.)

7 THE COURT: Please be seated.

8 We're back on the record and all

9 members of the jury are present. Good morning,

10 ladies and gentlemen.

Eli Lilly is ready to call its next

12 witness?

MR. LEHNER: Yes, Your Honor.

14 Thank you.

Good morning.

16 Eli Lilly and Company calls as its

17 witness Dr. Charles Beasley, the distinguished

18 Lilly scholar and chief scientific officer in the

19 Global Patient Safety Group.

20 VIDEOTAPED TESTIMONY OF CHARLES M. BEASLEY, JR

21 Q. Would you state your full name for the

22 record, please?

23 A. Yes. My name is Charles M. Beasley.

24 THE COURT: Are we going to put

25 this screen up?

Page 22 Page 24

- 1 MR. LEHNER: Yes.
- 2 Q. Good morning, Dr. Beasley.
- 3 Would you state your full name for
- 4 the record, please?
- 5 Yes, my name is Charles M. Beasley, Jr.
- 6 Q. And how old are you, sir?
- 7 A. I am 56.
- 8 Q. And are you married?
- 9 A. Yes, I am.
- 10 Q. And do you have any children?
- 11 A. No, I do not.
- 12 Q. Okay. And are you currently employed by
- 13 Eli Lilly?
- A. Yes, I am. 14
- 15 Q. And what's your current job title?
- A. My current job title is distinguished 16
- Lilly scholar and chief scientific officer for 17
- Global Product Safety.
- 19 Q. And how long have you held that
- 20 position?
- 21 A. I've held that position since the spring
- 22 of 2003.
- 23 Q. Okay. And do you currently have any
- 24 responsibilities regarding the drug Zyprexa?
- 25 No, sir, not directly. I -- my current

- 1 residency in psychiatry at the University of
- Cincinnati in Ohio between 1984 and 1987; is that
- 3 correct?
- 4 That would be correct. I completed the
- 5 residency in June of 1987.
- 6 Q. Okay. And I believe you became
- 7 board-certified in psychiatry in 1988; is that
- 8 correct?
- 9 A. That would have been correct. It's a
- 10 two-step process, and I believe that I completed
- 11 the second part in, I believe it was October of
- 12 1988.
- 13 Q. Okay. And you joined Eli Lilly as an
- 14 associate research physician in July of 1987; is
- 15 that correct?
- 16 Α. That's correct.
- 17 Okay. And can you briefly describe, in
- 18 general terms, the positions you've held at Eli
- 19 Lilly since joining the company in 1987?
- 20 A. Well, there's -- there's been about a
- 21 19-year evolution --
- 22 O. I understand that?
- 23 A. -- evolution here. I joined with the
- 24 title of associate research physician. And my
- 25 first work in the company was with fluoxetine,

Page 23

- 1 function is a consultant within Global Product
- Safety across a number of compounds as people
- would come and consult to me.
- Thank you. I'd like to go over some of
- your background. I believe you were born in 1950
- in Tokyo, Japan; is that correct?
- 7 A. That's correct.
- 8 Q. And I assume your father was stationed
- 9 there in the military?
- 10 A. That's correct.
- 11 Q. Okay. And then you received your
- 12 undergraduate degree in psychology at Yale
- 13 University in 1977?
- 14 A. That's correct.
- 15 Q. And you received your medical degree in
- 1983 from the University of Kentucky College of
- 17 Medicine; is that correct?
- 18 A. That's correct.
- 19 Q. And then I believe you did an internship
- at Yale University in the Department of
- 21 Psychiatry for a year?
- 22 A. That's correct.
- 23 Q. So that would take us up to 1984?
- 24 That's correct. A.
- 25 Okay. And then you did a three-year

- 1 trade name of Prozac --
- 2 Q. Okay.
- 3 A. -- the antidepressant. And I managed
- 4 and developed, supervised a number of clinical
- trials for Prozac. I don't remember the specific
- 6 number. I believe it was someplace in the order
- 7 of eight or ten.
- 8 Q. And then, continue, if you would,
- 9 describing the positions you've held.
- 10 Okay. While I was working on
- 11 fluoxetine, I also had responsibilities as the
- 12 trial designer and -- for the molecule that was
- then referred to as atomoxetine. It was being
- 14 developed as an antidepressant. This molecule
- 15 was not taken completely through development at
- 16 the time as an antidepressant. And this work
- 17 occurred simultaneously with my work on
- 18 fluoxetine, and took me -- takes me up to
- 19 approximately 1991.
- 20 O. Okay.
- 21 I did receive a promotion during that
- 22 time from associate research physician to
- 23 research physician. And 1991 was the point where
- 24 I was assigned responsibilities for the continued
- 25 development of olanzapine for trade name Zyprexa.

- 1 And I worked in this program on a global basis,
- 2 both in the United States and in coordination
- 3 with other physicians outside of the United
- 4 States, up through 1997 as part of the olanzapine
- 5 team. And there was an -- there was an evolution
- from the drug being developed as part of the
- general neuroscience team to a team focused
- specifically on the development of that molecule.
- 9 So I took part in both of those.
- 10 Q. And during that period, were you
- 11 developing and monitoring clinical trials that
- 12 were in support of the new drug application?
- 13 A. Yes, I was.
- 14 Q. Okay.
- 15 In 1997, there occurred a significant
- organizational change. I also had been promoted
- 17 in that period twice to senior research physician
- and then to Lilly adviser. 18
- 19 In -- in 1997 there was a -- a
- 20 reorganization. The team leader for the Zyprexa
- 21 team, Dr. Gary Toleffson, was promoted to
- president of the entire central nervous system
- 23 unit. Dr. Breier was placed in charge of the
- 24 team, and I transitioned off the team to report
- directly to Dr. Toleffson in a consultative role.
 - Page 27
 - 1 I was still rather much involved with olanzapine, 1
 - but in this different organizational system.
 - 3 It was in about, I think, 1998 or 4
 - '99 that I was assigned to be team leader for the
 - development of a -- we call it a transition team
 - for another molecule. Again, a central nervous
 - system molecule intended for the treatment of
 - anxiety disorders.
 - 9 Q. Let me interrupt for a second.
- 10 What year was it that happened?
- 11 A. I believe that was either 1998 or 1999.
- 12 I don't recall the specific date. And this was a
- molecule that did not come to NDA, and, in fact,
- 14 I was transitioned off that team prior to -- the
- completion of that -- of that project. 15
- 16 In 2001, I transitioned completely
- 17 out of the neuroscience area. I was requested to
- take the position of medical director for our
- 19 compound tadalafil, also known as Cialis, in the
- cardiovascular area. 20
- 21 In 2003, I transitioned back to
- 22 a -- a consultative position, pretty much across
- 23 all the therapeutic areas within Lilly, although
- 24 I reported directly to Dr. Gary Toleffson. So,
- 25 my home organizational base was within central

- nervous system, but worked across a broad number 2 of compounds.
- 3 And then in 2004, was -- during
- 4 another company reorganization, was asked to take
- the -- a position in global product safety.
- Dr. Toleffson had retired, and I was both, once
- 7 again, promoted to my current position and given
- my current functional organizational
- 9 responsibilities.

- Q. Okay. And it indicates there that the
- 11 molecule olanzapine, which was later marketed
- under the trade name Zyprexa, was first
- 13 synthesized in April of 1982.
- 14 Does that square with your
- 15 understanding?
- 16 That would be my understanding.
- 17 Okay. And then the investigational new
- 18 drug application was filed in 1986; is that
- 19 correct?
- 20 To the best of my knowledge, yes, that
- 21 would be correct.
- 22 Q. And that's sometimes referred to as an
- 23 IND, correct?
- 24 A. That's correct. That's how it is
- 25 abbreviated here.
 - Q. And an IND is something that a drug
 - company has to file with the FDA in order to
- 3 begin testing on human subjects; is that correct?
- 4 Yes. And, of course, that would be
- 5 within the United States --
- 6 O. Correct.
- 7 -- since it's filed with the FDA. Α.
- 8 And the document also indicates that the
- 9 first human dose was in September of 1986; is
- 10 that correct?
- 11 Yes, it does.
- 12 Okay. And the first open-label clinical
- 13 dose was in December of 1988, correct?
- 14 December of 1988, yes.
- 15 Okay. And that phrase first open-label
- clinical dose, refers to a type of study where
- 17 the drug is given to -- to subjects in a clinical
- 18 setting, correct?
- 19 A. Yes. This would also be what we would
- call an uncontrolled clinical trial. It is a
- 21 very preliminary observation of the medication
- 22 in -- in patients with the disease that is --
- 23 that the drug hopefully treats or is intended to
- 24 treat.
- 25 Q. Okay. And in order to receive approval

- 1 from the FDA to market a drug, drug companies
- have to perform various clinical trials,
- typically, involving placebo-controlled and
- double-blind studies; is that correct?
 - A. That's correct.
- And in this case, the first double-blind
- placebo-controlled dose was given in November of
- 1991; is that correct?
- 9 A. That's correct.
- 10 Q. And I believe you said you started
- 11 working with Zyprexa in 1991. Were you involved
- 12 in that very first clinical testing?
- A. Yes, I was. Although I did not design 13
- 14 those -- those clinical trials. I took over
- 15 responsibility for the supervision of the
- 16 molecule as those trials were beginning.
- 17 Q. Okay. And then the document indicates
- 18 that the completion of core studies occurred in
- 19 February of 1995. And can you describe for us
- 20 what is meant by the term "core studies"?
- 21 A. Yes. These would have been the studies
- 22 that would have been included in both the new
- 23 drug application, the NDA in the United States,
- 24 as well as the regulatory submissions in other
- 25 countries.

1 connection with the drug?

- 2 A. It was.
- 3 Okay. Fair to say that the vast
- majority of the data that you had from clinical
- trials regarding Zyprexa was the data from HGAJ?
- 6 A. Given the four other trials, I think it
- 7 remained the -- probably the majority. Again, I
- don't have a precise number, but I think it was
- 9 probably just slightly over the majority.
 - O. Okav.

10

- 11 In fact, if I can just -- in thinking, I A.
- 12 think there were a total of -- of 2500 patients
- treated in clinical trials that were included in
- 14 the NDA, and I believe there were 1300 in --
- treated with olanzapine, Zyprexa in that trial.
- 16 So I think that is slightly more than half.
- 17 Okay. And in the HGAJ study, am I
- 18 correct that patients were treated in that study
- 19 for up to a year with Zyprexa?
- 20 A. Well, if I may, it actually had a rather
- 21 complex design from a -- from a time perspective.
- 22 There was an acute treatment period of six weeks.
- 23 So all patients were treated up for -- for six
- weeks. If patients were not doing well, either
- 25 because of tolerance or efficacy, and they

Page 31

1 remained in the trial for three weeks, they could

discontinue and be placed on open-label

olanzapine. But that would have continued to be

within this trial.

5 There was then a -- what we call an

extension that, actually, ran past a year. It

ran until the time that the drug was actually

approved. So, there was no definite terminal

9 period. The option available to patients was for

10 them to actually be continued for longer than a

year. 11

- 12 Okay. And the other studies that were
- done in connection with the NDA, were they as
- 14 long-term as HGAJ?
- 15 A. Yes. They were, in fact, longer term.
- 16 We had placed for patients the -- within all of
- the studies -- the ability to take medication
- until the time that we either discontinued the --18
- 19 the development project or the medication was
- approved in their specific countries. Obviously,
- for the patients that were doing well on the
- medication, that was viewed as an appropriate 23
- opportunity for them to continue to receive
- 24 treatment.
- 25 Q. Am I correct that in that gap of time,

- Q. Okay. And the document also indicates that worldwide regulatory submission was filed in
- September of 1995; is that correct?
- A. That's correct.
- Q. And was there more than one regulatory
- submission filed at that time?
- 7 The two submissions that were filed
- almost simultaneously were the U.S. submission
- and the European submission. 9
- 10 Q. Okay. And in Europe it was submitted to
- 11 what agency?
- A. It was submitted to the European 12
- 13 Medicine Agency.
- 14 Q. Okay. Is that sometimes referred to as 15 EMEA?
- 16 A. EMEA.
- 17 Q. Okay. And am I correct that the largest
- of the core studies that was done was a study
- that was referred to as HGAJ? 19
- 20 A. That was the largest.
- 21 Q. And it had approximately how many
- 22 subjects in it?
- 23 A. It had 1,996 subjects.
- 24 Q. Okay. And was it the largest, by far,
- 25 of the various clinical studies that were done in

- 1 between February and September of 1995, the data
- 2 was essentially cut off, collection data was cut
- 3 off, and that there was then a period of time
- 4 where the data was written up for submission?
 - A. That's -- that's partially correct. As
- 6 I said, we allowed the studies to run until the
- drug was approved. So, there was a time when we
- declared the -- the collection of data for
- submission to the NDA to be finalized. And that
- 10 was a period where those data were unblinded, a
- term that we refer to as locked. Those data were
- finalized, they were developed and written up. 12
- 13 Although, again, patients were
- 14 continued and data were continued to be collected
- in these -- in these studies that were ongoing. 15
- 16 Q. Okay. And at the time that the data was
- 17 locked up or cut off for write-up purposes, if I
- can use that phrase, page 6 of this exhibit
- indicates that there were about 3,000 people who
- had received more than one dose; is that correct? 20
- 21 A. That's correct.
- Q. But only about 2,000 had received more 22
- 23 than one month?
- 24 Α. That's correct.
- 25 And only about 875 had received more

- did not warn physicians that your clinical
- studies had found statistically significant
- increased incidence of high glucose in Zyprexa
- users, correct?
- 5 A. That is correct. But my recollection of
- the data as you have -- have asked your question,
- is that we would not have found that. We would
- have -- and what we did was we analyzed both the
- placebo-controlled data and the
- 10 haloperidol-controlled data. There were three
- studies that include haloperidol on what we call
- an integrated basis. And my recollection is that
- those integrated analyses did not show or support
- 14 the finding that we'd been discussing in J.
- 15 Q. Do you recall that the FDA approved
- Zyprexa for marketing in September of 1996?
- 17 A. I don't recall whether it was late
- 18 September or early October.
- 19 Q. Okay. And am I correct that one of the
- 20 last things that happens before a drug is
- marketed is the drafting of labeling for
- 22 prescribing physicians?
 - A. Well, there is, actually a draft that is
- prepared as part of the new drug application. 24
- 25 And it's submitted to the FDA as part of

Page 35

23

9

- the new drug application. The FDA then comes
- back and says whether they approve that language
- 3 or not, correct?
- 4 Α. That's correct.
- 5 Q. And oftentimes -- and there is
- interchange between the company and the FDA as to
- 7 what's going to be in the content of the
- 8 language, correct?
 - A. That's correct.
- 10 O. And when the FDA saw the data, the
- 11 FDA -- well, let me back up for a second.
- 12 When we talk about the labeling,
- 13 that's the package insert material, correct?
- 14 That's correct.
- 15 It's also contained in the Physicians'
- Desk Reference, which is a big, thick book which
- contains the labeling for all prescription 17
- 18 products, correct?
- 19 A. I think for the majority. It's not all.
- 20 And those are copies of -- obviously, intended to
- 21 be kept current -- the prescribing information or
- 22 the package insert.
- 23 Okay. And that information, the
- prescribing information that is contained in the 24
- 25 labeling is very critical for doctors to have;

- than six months?
- 2 A. That's correct.
- 3 Q. And only slightly more than 300 had
- actually used the drug for more than a year; is
- that correct?
- A. That's correct. 6
- 7 Q. Didn't your clinical trials show that
- there was increased cholesterol and also type 2
- 9 diabetes?

- 10 A. I do not recall the -- the specifics of
- 11 the results of all the analyses of cholesterol.
- 12 My recollection is that taking all of the data in
- 13 total, we did not see an association between the
- 14 drug and cholesterol. And with respect to
- diabetes, the same. 15
- 16 Clearly, cases were observed in what we would call temporal association when 17
- individuals in clinical trials did develop
- 19 diabetes, a small number, and we did not, in
- looking at all the data, see the compound as --21 given the date that we had, as there being an
- 22 increased or excessive development within our
- 23 clinical trial database.
- 24 Q. And the labeling that was in effect at
- 25 that time when the product came out in the market

- 1 isn't that correct?
- 2 A. It is intended to be a summary of the
- data that would allow the effective and safe use
- of the medication. That is correct.
- Q. And it's absolutely necessary that the
- information in there is complete and accurate,
- 7 correct?
- 8 A. Again, it's important that it -- that it
- 9 allow for the safe and effective use of the
- medication. From a concept of complete, again,
- all 1.5 million pages can't be contained. So, 11
- 12 the intent is that it is a summary of the most
- pertinent information that will allow the drug to
- be prescribed appropriately.
- 15 Q. And do you know who Dr. Ken Hornbuckle
- 16 was?
- 17 Yes. Α.
- 18 O. And who is he?
- 19 He is a veterinarian and epidemiologist.
- 20 He's our chief epidemiologist --
- 21 O. Okav.
- 22 A. -- at Lilly.
- 23 Q. And is he still in that capacity?
- 24 Yes, he is. Α.
- 25 And who is Dr. Man Fung?

- 1 to?
- 2 A. No. I'm not certain at this -- at this
- 3 time.
- 4 Q. Okay. Would you -- did you have
- 5 interaction with either of those gentlemen back
- in '98? 6

8

- 7 A. Yes, I would have.
 - With respect to Zyprexa?
- 9 A. Yes.
- 10 Q. Okay. And describe the nature of your
- 11 interaction with those folks back in '98.
- Well, again, although I was not part of
- 13 the olanzapine team, I did review aspects of
- safety from a product team perspective. So, I
- would have interacted with these individuals who 15
- also served to review safety data. So it was
- 17 a -- we, in essence, formed a -- a larger team
- 18 across several components of the corporation.
- 19 Q. And who is the "we" that you're
- 20 referring to there?
- 21 A. Would have been Dr. Hornbuckle,
- 22 Dr. Fung, other members of the product team,
- medical members of the U.S. affiliate, members of
- their -- additional members of the worldwide
- pharmacovigilance and epidemiology staff.

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- 1 A. He was --2 By the way, am I pronouncing his name Q.
- correctly?
- A. Yes. that's correct. Man Fung.
- Dr. Fung was the physician responsible for
- Zyprexa, olanzapine in the pharmacovigilance and
- epidemiology division within the company.
- Q. And what is the worldwide
- pharmacovigilance and epidemiology division? 9
- 10 A. This is a unit that serves a number of
- 11 functions in terms of monitoring the safety of
- 12 products, both drugs and administration
- 13 instruments. They deal with the collection of
- 14 the spontaneous adverse event reports, their
- organization, their analysis. They -- it's been 15
- 16
- an evolving organization.

- They're also involved in
- potentially setting up epidemiological studies, 18
- 19 intentionally suggesting prospective studies and
- 20 then interfacing with regulatory. They sit as
- 21 part of regulatory. This is, actually where,
- 22 with a different name, my current position
- 23 resides within this -- within this organization.
- 24 Q. Do you know who, back in 1998,
- 25 Dr. Hornbuckle and Dr. Fung would have reported

- Q. And did that collection of individuals
- you've just described, did they have a name or
- a -- for that team or group?
- No, there was no specific name for that
- group of individuals.
- 6 Q. Is there -- was there anyone who sort of
- 7 led or headed up that group?
- A. It was driven, I think, as sort of a
- 9 joint effort with Dr. Fung, Dr. Hornbuckle, and
- 10 myself.
- 11 Q. Okay. And I've seen reference to a
- Dr. Kenneth Kwong. Was he part of that 12
- 13 pharmacovigilance and epidemiology group as well?
- 14 When Dr. Fung moved on to other
- 15 assignments, Dr. Kwong took his place.
- 16 Q. Okay. Am I correct that one of the --
- 17 well, let's talk about these spontaneous reports
- and what they are. These are sometimes referred
- 19 to as adverse reaction reports, or adverse event
- 20 reports, correct?
- 21 A. Adverse event reports, yes.
- 22 Okay. And they can come into the
- 23 company from doctors or from consumers?
- 24 Among other people. There are a lot of
- 25 sources. They can also come in from literature,

- 1 for example, as well as -- as well as other sources.
- 3 Q. Okay. You referred several times to a group known as the product team that was led by Alan Breier; am I correct?
- 6 A. That's correct.
- 7 And can you describe for us what that product team consisted of or who was on that 9 team?
- 10 A. That was a very large team of 11 individuals that was responsible for this 12 molecule exclusively from a worldwide and corporate perspective, primarily directed at doing research, but also with a global marketing
- 15 component. 16 And that is in contrast to the --17 the -- I guess, 190 international affiliates who 18 actually did -- also did research and actually 19 directly marketed the compound. So this is a --20 this is a group that did general work with the 21 compound. And I hope that's an adequate 22 explanation. 23 Q. I'd like to probe a bit more in terms
- 24 of -- you said it's a large team, and I don't expect you to remember all the particular

1 interrupted you.

- 2 A. There would have been a medical
- component -- I hope I get most of these. There
- would have been a statistical component. There
- would have been a very large component -- there
- would have been a systems component, people that
- 7 actually worked with the computers in contrast to the statistical individuals.
- 9 There would have been what we call,
- 10 for instance, medical plans. These are the
- individuals, usually with bachelor's or master's 11
- degree training that actually support physicians
- in the conduct and the interface with doing
- 14 research. There would have been a medical
- 15 writing component. Those are the ones that I'm
- 16 familiar with. I may be missing a component or
- 17 two -- a component or two.
- 18 O. Let me direct your attention back to
- 19 Exhibit 6890, and this agenda for Zyprexa medical
- 20 marketing in December of 1998. Do you recall
- 21 this particular meeting?
- 22 A. No. Almost seven and a half years ago,
- 23 I don't recall the specific meeting.
- 24 Okay. Do you see under the agenda,
- 25 there's several bullet points. The middle one

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- 1 individuals, but were there different departments
- that comprised the components of that team?
- Yes. There would have been a medical
- component. So, there were a number of physicians
- that were on the -- on the team.
- Q. And you mentioned Dr. Breier. He's, 6 obviously, a physician.
- 8 A. He was a physician -- but he was the 9 head of the whole organization.
- 10 Q. Do you recall whether Drs. Kinon and
- 11 Dr. Robert Baker were members of that product
- 12 team?
- 13 A. I think they were actually members of
- 14 the U.S. affiliate, so they would not have been
- 15 members of the product team at least at this
- 16 point in time. I don't think -- I think
- 17 Dr. Kinon was briefly a member of the product
- 18 team early when he came to the company, but then
- 19 moved to the -- to the U.S. affiliate. And I
- 20 don't think -- I think Dr. Baker when he came
- 21 was -- came directly into the U.S. affiliate.
- 22 Q. Okay. I interrupted you. You were
- 23 telling me that part of the product team was a
- 24 medical -- well, it was led by Dr. Breier. There
- was a medical component. And that's when I

- 1 is: Weight gain and link to diabetes, question
- mark. What does the data say and what is our
- action plan, question mark.
 - Do you see that reference?
- 5 Yes, I do. A.
- 6 Q. And then there's a handwritten note at
- 7 the bottom relating to weight gain, correct?
- 8 A. Yes, there is.
- 9 By the way, do you recognize that Q.
- handwriting? 10
- 11 No, I don't.
- 12 The handwritten note says: Weight gain
- 13 and genetic vulnerability lead to hyperglycemia,
- 14 correct?

- 15 Yes, it does. Α.
- 16 Q. And do you agree with that medical
- 17 concept?
- 18 A. I would characterize this as being not
- 19 correct.
- 20 Okay. In what way do you say it's not Q.
- 21 correct?
- 22 A. I would view both weight gain and
- 23 genetic variability as risk factors for the
- 24 development of hyperglycemia. Individuals who
- 25 have these risk factors may or may not go on to

3

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1 develop hyperglycemia. A lot of people gain weight who don't become diabetic, as with people -- there are people who become diabetic who don't gain weight.

Presumably, there is this element of genetic variability. Certainly, a strong hypothesis built on epidemiologic studies noting that it runs in families, but we have not 9 identified the -- the gene abnormality that 10 invariably leads to hyperglycemia or developing.

- 11 Q. And if someone has a risk factor, that 12 means that they may develop that problem, correct?
- 14 A. That -- that puts them at increased 15 risk. To be very precise, that puts them at 16 increased risk relative to patients or 17 individuals without that risk factor.
- 18 Q. And if, in fact, you have a group of 19 people who are at increased risk, then those 20 people -- some of them -- you may not be able to 21 tell who, but some of them will, indeed, come
- 22 down with the -- with the adverse event at the

23 end of the day, right?

A. I -- I can't absolutely conclude that 24 25 because, again, these things remain risk factors.

discussed, there was one finding in one clinical 2 trial of many analysis showing that finding.

And by -- strike that.

4 When the clinical trials for Zyprexa was done before it was marketed, was the evaluation of the risk of diabetes with Zyprexa a 7 specific goal of those clinical studies?

- 8 A. Although it was not a -- stated as a primary outcome in the protocol, it was clearly 10 one of the many aspects of safety that was 11 evaluated.
- 12 If diabetes or hyperglycemia had been 13 the specific goal of the study, would you have recommended that fasting glucose blood tests be taken as opposed to random blood glucose testing? 15 16
- Actually, I would not have made that 17 recommendation.

O. And why is that?

19 My concern is with the compliance of 20 patients that suffer severe mental disease, and

knowing that you could get the possibility of

really significant noncompliance in this patient

23 population, so that if you thought you had

fasting glucoses, in many instances you may well not have fasting glucoses.

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1

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1 Some of them actually having a relatively low

incidence of increased risk. So I cannot

automatically know that because someone has risk

or that a large group of individuals has risk

factors, that somebody will definitely develop

the condition within that --

Q. Let me restate the question.

8 Would you agree, sir, that if you 9 have a group of people who are at increased risk 10 of having some adverse event occur that it is

11 more probable than not, at the end of the day, 12 that some of those people will, in fact, develop

the adverse event as a result of using the drug

14 that increased their risk?

15 A. All I can say is that there is increased probability among those individuals with that risk factor of developing the condition if they -- than if they did not have the risk

19 factor. 20

7

That would be correct.

21 Q. And, in fact, as we saw earlier, your 22 clinical trials back in 1995 showed a 23 statistically significant increased incidence of

24 hyperglycemia with use of Zyprexa, correct? 25

And I disagree with that. As we

Q. Okay.

2 A. That was -- that was my opinion at the 3 time.

4 Okay. And in item C in this e-mail it

states: Charles Beasley reassures that

regulators have felt satisfied with Lilly's explanations and Lilly's commitment to conduct

new clinical trials and to continue to do

9 proactive post-marketing safety surveillance.

Did I read that correctly?

Yes, you did. 11

> Q. And who did you work with on that project?

13 14 There were a number of people that 15 I worked with -- and this actually represents a

number of projects. And, again, I don't recall

17 specific conversation with Edmundo, but there 18 were several activities that were going on at the

19 time.

20 I worked with the pharmacovigilance individuals and the -- the team -- the product

team to produce a review, very detailed review of

23 both the spontaneous data and the -- and the

clinical trial data that -- substantial amount of

13 (Pages 46 to 49)

- 1 released. We had also made the decision to
- 2 conduct -- and this was in part of agreeing with
- 3 this senior leadership cross-functional team, to
- 4 conduct some studies of potential mechanisms of
- 5 inducing hyperglycemia. So that we -- we had
- intended to study ways in which the medication
- might cause patients to become hyperglycemic, if
- 8 it did.
- 9 Q. This -- as you referred to it, detailed
- 10 review of the spontaneous data and clinical trial
- data in 1999, was that for the purpose of
- addressing the hyperglycemia issue?
- 13 A. The -- the topic of hyperglycemia, yes.
- 14 Q. Okay. And who was it that directed you
- 15 to undertake that review?
- 16 A. No one, actually directed that review to
- 17 be undertaken, to the best of my recollection.
- 18 It was Dr. Kwong in pharmacovigilance, his group,
- 19 and myself that felt it would be appropriate to
- 20 conduct a very, very thorough --
- 21 O. Okav.
- 22 A. -- and comprehensive review. I believe
- 23 that it began in early 1999.
- 24 Q. Okay. And would it be fair to say that
- 25 you and Kenneth Kwong were the principal drivers

- approved this language?
- 2 Α. Yes.

7

- 3 Okay. And by approving it, you believed
- that what was stated in there was accurate and
- truthful, correct?
- 6 A. At -- at the time --
 - Sure. That's all you can do.
- 8 -- yes, recognizing that the basis for
- 9 the specific numbers that had been included in
- here were from the very first preliminary 10
- 11 analysis of our clinical trial.
- Q. I'm not sure what you meant when you
- 13 said that the basis for the specific numbers had
- 14 been included in here were from the very first
- 15 preliminary analysis of our clinical trial data.
- 16 Can you explain that?
- 17 A. Yes. Thank you.
 - The numb -- the numbers contained
- 19 in here were brought forward for review by the
- 20 GPLC, and we clearly suggested and thought that
- a -- a labeling change was appropriate. The --
- 22 the basis for this, as I said, is someplace
- 23 between 50 and 100 studies.
- 24 I brought forward to, I believe,
- 25 Dr. Breier, Dr. Toleffson and other individuals

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18

the results of the very first successful run of

- that -- of that data. And so that was the basis
- for what went in here.
- 4 Q. Okay.
- 5 It's -- it's very much like the first
- time that you run a long column of numbers on an
- adding machine and get a result.
- 8 Q. Is schizophrenia a risk factor for
- 9 diabetes?
- 10 The data appears to be that there is an
- 11 increased risk in the patient population with
- schizophrenia so that it would constitute a risk
- 13 factor.
- 14 Q. So, it's Dr. Beasley's opinion that
- 15 schizophrenia is a risk factor for diabetes?
- 16 That's my understanding of the
- 17 literature and, therefore, that is my opinion.
- 18 Q. Dr. Beasley, let me just ask you a
- 19 question or two about some of the exhibits that
- 20 you've been asked about during your deposition.
- 21 First of all, if we could look at
- 22 the Plaintiff's Exhibit 229. If you will
- 23 recall -- and I want to look at page 4 of that.
- If you recall that, this is the one that contains
- 25 the statement no routine blood monitoring

- 1 for undertaking that review? A. Yes, directly. But, again, Dr. Breier
- 3 had put together this team that, I believe, he
- actually convened earlier than 1999. I'm not
- sure when he actually convened this team to look
- at clinical data, preclinical data for both
- weight gain, which was -- which there was
- recognized data of an association, and potentially develop treatment methods,
- 10 potentially do studies to investigate potential
- 11 treatment methods, and that this piece of work
- 12 that Dr. Kwong and I decided to undertake, we
- 13 actually viewed as a component of this overall 14 activity.
- 15 Q. And, Dr. Beasley, if I could refer you
- to the second physical page of the document.
- 17 A. Uh-huh.
- 18 O. There's a heading towards the top of the
- 19 page below the confidential label that says:
- 20 Olanzapine labeling change on hyperglycemia for
- 21 the February 21, 2000, GPLC meeting. 22 Do you see that?
- 23
- And regardless of whether you
- personally drafted the text that's in here, would
- 25 it be fair to say that you not only reviewed but

- 1 required.
- 2 Do you see that?
- 3 A. Yes, I do.
- 4 Q. Dr. Beasley, as a physician with respect to the prescription of antipsychotic medications,
- does that have some particular meaning to you?
- 7 A. Yes, it does.
- 8 O. Can you tell us what that is?
- 9 This would be in the area of
- 10 antipsychotic prescribing, a statement that we
- 11 would -- that one would not need to routinely
- 12 monitor white blood cell counts, which is the
- 13 case with one antipsychotic that's available on
- 14 the market.
- 15 Q. And is the monitoring of white blood
- 16 cell count, does that have anything to do with
- 17 blood glucose, or hyperglycemia or type 2
- diabetes? 18
- 19 A. No, it does not.
- 20 Q. Dr. Beasley, do you recall questions put
- 21 to you -- I think it was with respect to one of
- the particular e-mails that made a reference to
- 23 two full-time people hired at Lilly to work on
- 24 the Zyprexa and hyperglycemia issue?
- 25 A. Well, there were two full-time people

- meeting in Atlanta with the endocrinology outside
- 2 consultants; do you recall that?
- 3 That's correct.
- 4 And there was mention in that one e-mail
- with respect to the fact that those individuals
- had advised Lilly to look at continuous-type
- 7 analysis of the Zyprexa data. 8
 - Do you recall that?
- 9 That's correct. A.
- 10 Q. Did Lilly take that advice?
- 11 To my understanding, yes. There were a
- 12 number of activities undertaken during the fall
- 13 and into the winter with medical supervision by,
- again, Dr. Cavazzoni, involvement of internal
- 15 statistical resources. I believe Dr. Sowell was
 - probably involved to some extent. And then there
- 17 were two separate outside consultants that were
- involved in analyses, Dr. David Allison, actually
- 19 earlier in the year, and then later Dr. John
- 20 Buse.
- 21 Q. And to the best of your knowledge,
- 22 Dr. Beasley, has Lilly continued with the project
- 23 of the continuous-type analysis of the Zyprexa
- 24 data with respect to blood glucose?
- 25 I'm not familiar with the specifics of

- 1 assigned. And these were -- these were people
- that were principally assigned in this area.
- Q. I just want to ask you about those
- people. Who were those people, particularly?
- 5 A. That would be Dr. Cavazzoni and
- Dr. Missy Sowell.
- 7 Q. And those two individuals were assigned
- full-time to do work on the hyperglycemia issue
- 9 with respect to Zyprexa?
- 10 Dr. Beasley, the question I want to
- 11 put to you is: Who is Dr. Sowell that you made
- 12 reference to?
- 13 A. Dr. -- Dr. Missy Sowell. She was an
- 14 endocrinologist, diabetes and metabolism
- 15 specialty physician holding both an M.D. and
- 16 Ph.D.
- 17 Q. Now, Dr. Beasley, in reference to the
- 18 two people you've testified about who were
- 19 assigned to work full time on the hyperglycemia
- 20 issue, were there additional resources other than
- 21 those two people put to work on the hyperglycemia
- 22 issue at Lilly?
- 23 A. There would have been statistical
- 24 resources and system analyst resources.
- 25 You were also asked questions about the

- 1 subsequent analysis, but Lilly has certainly
- continued a number of projects and analyses in
- this area. It continues to be, obviously, an
- important area that is continuing to be studied
- and evaluated.
- 6 Q. Now, you were asked some questions about
- what is marked as Plaintiff's Exhibit 1349, and,
- in particular, about page 6 of that exhibit. I
- 9 want to put that in front of you. That's the
- 10 exhibit that shows the number of patients at that
- 11 time in the Zyprexa clinical trials and the
- 12 duration of exposure with respect to those
- 13 patients.
- 14 Do you recall those questions?
- 15 Yes, I do. A.
- 16 Q. And let me just ask: This is the
- 17 exhibit that shows the number of Zyprexa patients
- 18 that got, for example, more than one dose of the
- 19 drug, exposure to the drug more than a month,
- then those who had exposure to the drug more than
- 21 six months, and those who had exposure more than
- 22 a year. 23
 - Do you recall questions about that?
- 24 That's correct. A.
- 25 Now, Dr. Beasley, was safety data

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- 1 gathered from all of the patients in each of 2 those groups?
- 3 A. Safety data was -- was obtained for all 4 individuals who were exposed to the -- to the 5 drug.
- Q. Are there recognized international
 standards, Dr. Beasley, with respect to the
 duration of exposure in drug studies like the
 clinical trials performed on Zyprexa?
- 10 A. There are. There are what are referred 11 to as the CIOMS guidelines that are generally 12 used and recognized by most regulatory agencies. 13 And these -- these are the guidelines that sort 14 of dictate or indicate how many patients should
- application can be submitted.
 Q. Now, with respect to Zyprexa -- and,
 again, referring specifically to the

be treated for how long before a new drug

15

- 19 international guidelines for the duration of 20 exposure for patients in the clinical trials,
- what can you tell us about how the Zyprexa
- 22 clinical trials matched up with those guidelines?
- A. Well, the guidelines suggest a number of patients that should be treated for one or more
- 25 doses, and that is 1500, and for one or more

1 Zyprexa patients; is that correct?

- A. Yes, there is.
- 3 Q. Now, what was not asked of you, and I
- 4 want to ask of you, is -- is there a value for
- 5 the Zyprexa patients in that study for moving
- 6 from normal or high glucose to a low glucose 7 level?
 - A. Yes, there is.
- 9 Q. All right. With respect to the 7.7 10 percent for Zyprexa patients, can you tell us,

11 what does that signify?

- 12 A. Well, that signifies the number of13 individuals who at some time during up to six
- weeks of treatment with values being measured weekly had what was defined as a hypoglycemic
- weekly had what was defined as a hypoglycemic value, an abnormally low value of glucose.
- 17 Q. Now, can you make a comparison between 18 the number of Zyprexa patients that went to low
- 19 glucose as compared to the percentage that went
- 20 to high glucose?
- A. It was 2.6 percent that went to high and
- 22 7.7 percent that went to low. That's the percent
- 23 for low, or the lows are probably about 2.8 times
- 24 as many patients as went to high.

25 Q. All right. And with that many -- with

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doses with olanzapine or Zyprexa it was 3,139.

The guidelines actually recommend a range for six months or greater -- and this is 4 300 to 600. And the number with olanzapine was

- 5 876, and the guidelines for one year is 100. And
- 6 the number of Zyprexa, olanzapine patients was7 301.
- 8 Q. Now, I want to ask you about the --9 what's marked as Plaintiff's Exhibit 1605, and 10 particularly, page 11 of that exhibit.

11 If you'll recall, that's the 12 exhibit that refers to study HGAJ and 13 particularly the nonfasting glucose levels at any 14 time.

- Do you recall those questions?
- 16 A. That's correct.
- 17 Q. Now, you were specifically asked with
- 18 respect to the Zyprexa patients about the
- 19 percentage of patients who had a high glucose
- 20 reading at any time during that study.
- 21 Do you remember that?
- 22 A. Yes, I do.
- Q. And that percent is what?
- A. That is 2.6 percent.
- 25 Q. Now, there's another value there for

- 1 that percentage of Zyprexa patients going to a
- 2 low glucose level, what does that tell us, if
- 3 anything, about the significance of that, quote,
- 4 at any time glucose measurement?
- 5 A. Well, that would suggest that it's --
- 6 it's very difficult to interpret these data as 7 particularly meaningful. As I was suggesting,
- 8 this is one analysis that we would take into
- 9 consideration with the analysis of end point
- data, similar data at end point, and then meanchange data, which would actually be mean change
- 12 to high, mean change to low, and mean change to
- 13 end point. So, we really consider five basic
- 14 analyses in terms of coming to any final
- 15 interpretation or conclusion.
- Q. And overall, when all of the data is considered from that particular study, what did
- 18 the data show with respect to glucose levels?
- 19 A. My recollection is that the
- 20 interpretation was that there was no difference
- 21 from haloperidol.
- 22 Q. Now, there had been questions during
 - 3 your depositions about clinical studies and
- 24 controlled clinical trials on potential new
- 25 drugs.

- 1 Do you recall questions like that?
- 2 That's correct. A.
- 3 Q. Did you have any experience in your
- residency program and training with respect to
- clinical trials of potential new drugs for
- psychiatric illnesses?
- 7 A. I was actually asked to take on a
- part-time job outside my residency by university
- faculty who were conducting clinical research on
- 10 new drugs as a co-investigator.
- 11 Q. Let me ask you the same question I asked
- 12 about medical school. Did you have any
- particular national honor or recognition during
- your psychiatric residency program?
- 15 A. I was -- during my senior year I was
- 16 named a Laughlin Fellow.
- 17 What does that mean?
- 18 A. Which was a fellowship to attend and
- participate in the activities of the American
- 20 College of Psychiatrists, which is an honorary
- 21 psychiatric society, I think for approximately 12
- 22 to 15 recipients throughout the United States and
- 23 Canada.
- 24 Q. Now, I think you told us you started
- 25 your job at Lilly after you completed your

- 1 taking a drug?
- 2 A. Well, that's -- that's an integral part
- of running and analyzing any clinical trial.
- 4 That has been very much sort of my focus and,

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- frankly, the thing that -- that the company at
- this point views me as relatively expert in,
- 7 which is why I'm in the consulting position I'm
- 8
- 9 Tell us, were there specialists at Lilly
- 10 in endocrinology and, in particular, in diabetes, 11 who participated in the review and evaluation of
- this issue about hyperglycemia and diabetes as it
- 13 concerns Zyprexa?
- 14 Yes. There were at several levels. Α.
- 15 All right. First, have there been
- 16 specialists in endocrinology and diabetes at
- Lilly who were principally focused in their
- 18 careers on these questions?
- 19 A. Yes. There have been a -- a series
- 20 of -- of endocrinologists and diabetologists that
- 21 were actually assigned to work on the Lilly team.
- 22 So although not psychiatrists or neuroscientists,
- 23 their principal assignment was to the team, the
- 24 product team.
- 25 And other than the specialists in

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1 endocrinology and diabetes who were assigned to

- work principally on the team, have there been
- 3 other individuals with those specialties who have
- 4 been involved in studying the hyperglycemia issue as it concerns Zyprexa?
- 6 A. Yes, there certainly have been
- individuals. And we discussed one yesterday
- on -- I think it was on one of the e-mails. A
- number of the -- of the endocrinologists and
- 10 specifically the diabetologists have had the
- opportunity to review data and give advice and
- 12 suggestions about continued experimentation in
- 13 the work.

20

14 THE COURT: Are we at a good spot

to take a break? 15

16 MR. LEHNER: This would be a fine 17 spot, Your Honor.

18 THE COURT: Ladies and gentlemen of

- 19 the jury, we'll take a 15-minute break.
 - We'll be in recess.
- 21 (Jury out.)
- 22 (Break.)
- 23 (Jury in.)
- THE COURT: Please be seated. 24
- 25 We resume with Dr. Beasley's

- 2 That's correct. A.
- 3 Q. And what year was that?
- That would have been 1987. It was 4
- 5 7/7/87.
- 6 Q. So you've been at Lilly now how long?
- 7 A. A little over 19 years.
- 8 Q. Now, during those 19 years, I'd like to
- ask you to tell us about the -- the nature of
- your work. And, first, with respect to the study
- and research on new drugs to treat -- treat 11
- 12 psychiatric illnesses.
- 13 What has been your job with respect 14 to that?
- 15 A. Well, that has been the core if -- or
- 16 certainly a large component of my -- my job.
- Through my first 17 years or so here, I think I
- probably supervised, wrote, directed the analysis 19 of probably something around 20 clinical trials
- 20 in that -- in that time period with -- with
- 21 several drugs we talked about yesterday.
- 22 Q. Now, would you tell us, what has been 23 your job, if any part of it, at Lilly for the
- 24 last 19 years concerning the evaluation and

25 analysis of observed adverse events in patients

- 1 deposition?
- 2 MR. LEHNER: Thank you, Your Honor.
- 3 THE COURT: And the record should
- 4 reflect that all members of the jury are present.
- Q. Now, the questions that I want to ask
- you right now have to do with performing clinical
- 7 trials with proposed new drugs, okay?
- 8 A. Yes.
- 9 Q. First, let's start with an uncontrolled
- 10 trial. Can you explain, and if it's helpful,
- make a diagram, of what -- what you actually do
- 12 in performing an uncontrolled trial with a new
- 13 drug?
- 14 A. I can.
- 15 Q. And tell us what you're doing.
- 16 A. First off, I'm writing the title
- 17 Uncontrolled. And this is the type of trial
- that's done early in development that we talked
- 19 about yesterday where --
- 20 Q. All right.
- 21 A. -- there is only a group of individuals
- that are treated with the drug. There are no
- 23 other treatments in this trial.
- 24 Q. All right. Now, tell us what you
- 25 actually do in an uncontrolled trial with the

- 1 A. You observe things.
 - Q. All right. Now, give us an example of
- what kind of observations are made in an
- uncontrolled trial.

2

- 5 A. Well, if we're talking about something
- 6 like an adverse event, we could say flu-like
- 7 symptoms, and a number of these individuals might
- 8 have flu-like symptoms. Let's say there's seven
- of them. So we have seven, ten, flu-like.
- 10 Q. Now, Dr. Beasley, if, in your example
- 11 the seven out of the ten patients in the
- 12 uncontrolled drug trial were observed to have
- 13 flu-like symptoms, what conclusions could you
- 14 draw, if any, whether the drug caused the
- 15 flu-like symptoms?
- 16 A. Well, in this particular trial, you
- 17 wouldn't draw any conclusions about causation or
- causality. You would simply draw the conclusion
- 19 that there were a lot of flu-like symptoms
- 20 experienced in these individuals during this
- 21 trial.
- 22 Q. Could you, in fact, make any conclusion
- 23 with respect to the question: Does the drug
- 24 cause flu-like symptoms?
- No. That would not be considered

Page 67

1 scientifically appropriate.

- 2 O. Why not?
- A. Because there are many things that could
- 4 cause flu-like symptoms, since this is a -- very
- common occurrence. It could be the flu virus; it
- could be common cold viruses; it could be
- environmental exposures; it could be contaminated
- sushi that someone ate the evening before or, if
- 9 it were served on an inpatient unit to all these
- 10 individuals, lots of different potential causes.
- 11 Q. Now, if you would, could you tell us
- 12 about a controlled trial and illustrate that on
- 13 your diagram?
- 14 A. Well, that would be the -- the next step
- 15 in terms of types of studies, and here we would
- 16 have --
- 17 0. What does the second box you're drawing
- 18 represent?
- 19 This is going to be a comparison
- treatment, a comparison group with placebo. 20
- 21 As you're writing the word "placebo"
- 22 there, you'll have to tell us what that means.
- 23 This would be a -- an inactive
- 24 substance. It could be cornstarch. It could be
- 25 lactose. It is a -- it is a capsule or a pill

1 drug.

- A. Let me illustrate some -- some
- individuals in this trial. We have ten people in
- this trial.
- 5 Q. And the circles represent what?
- The circles represent the people. So, 6
- this group of ten people in this uncontrolled --
- 8 Q. You've got nine of them there. You
- 9 better put one more.
- 10 A. Got to put the one more -- are treated
- 11 for some period of time with the proposed drug.
- 12 There is -- there is nobody else being treated
- 13 with anything but the drug in this particular
- 14 trial.
- 15 Q. All right. Then, what do you do?
- 16 A. Well, you observe these individuals.
- 17 You observe them.
- 18 You do physical examinations, you do
- 19 blood studies, you collect your history of
- medical problems, you collect the minor symptoms
- that they might be having, such as headaches,
- prior to being treated with drug. And then you
- 23 repeat these examinations periodically during the
- 24 course of trial.
- 25 All right. Now --

- 1 that looks identical to that given to patients
- 2 who are receiving the drug, but it is an inactive
- or inert substance. It has no chemical action in the body.
- 5 Q. All right. And who is in the placebo 6 group?
- 7 Well, generally, these would be done
- with similar-sized groups. So, obviously, in
- clinical trials the numbers are actually larger.
- 10 But in this illustrating example, we're having
- 11 ten drug-treated patients, ten placebo-treated
- 12 patients. I'll just draw that to make it clear
- that that's all that one, and that was just the
- 14 uncontrolled.
- 15 Q. All right. Now, are -- if you want a
- 16 controlled clinical trial, you've described two
- 17 groups and you initially described the
- 18 observation of adverse events. Would that also
- 19 be observed in the placebo group?
- 20 A. You would do everything identically to
- 21 the individuals in the drug group and the placebo
- 22 group.
- 23 Q. And provide an example for us regarding
- the observation of adverse events in the placebo
- 25 group.

- Page 71 A. Well, if you had a similar number --
- suppose we had seven of ten, okay.
- 3 Q. Now, what does that represent?
- 4 This represents seven of the ten placebo
- patients also experiencing flu-like symptoms.
- 6 Q. Now, if you, in fact, had a controlled
- clinical trial with the observations of adverse
- events that you have portrayed in your diagram,
- what, if anything, would you be able to conclude
- 10 about whether the drug caused the flu-like
- 11 symptoms?
- 12 A. Well, here's where we use the -- the
- 13 mathematics of statistics to compare the -- the
- 14 percentage, in this case it would be the
- 15 percentages of patients. And given the very
- 16 similar number, we would conclude that there is
- not a significant difference here. And the way
- that we would interpret that is that it would be
- 19 unlikely -- because there is similarity, it would
- be unlikely that the drug caused the flu-like 20
- 21 symptoms. We would conclude that other things
- unknown to us, but, again, with a lot of
- 23 possibilities, would have caused the flu-like
- 24 symptoms.
- 25 Are you familiar with the term called

- 1 blinded as it refers to controlled clinical
- 2 trials?

5

- 3 A. Yes, I am.
- 4 Could you tell us what that means? Q.
 - That means that neither the -- the
- doctors who are giving the drug or -- and/or
- evaluating the patients, performing the
- examinations, nor the patients know which patient
- 9 is receiving drug and which patient is receiving
- 10 placebo.
- 11 Q. And why is that important, if it is?
- The reason that that is important is to
- 13 prevent the -- the -- either the reporters, the
- doctors, or the reporters, the patients, from
- 15 believing that they might have something -- some
- effect because they know what they're receiving
- and reporting consistent with their belief. It's
- 18 done to do what we would call prevent bias in
- 19 reporting.
- 20 Q. All right. Now, Dr. Beasley, if you
- 21 would, could you draw a vertical line down your
- diagram there so we can let me ask you questions
- 23 about a related but different topic?
- 24 And now I want to ask you: Are you
- 25 familiar -- and we've already heard some

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- questions today about something called a
- spontaneous report of an adverse event. 3 Are you familiar with that?
- 4 Α. Yes, I am.
- 5 Q. Can you tell us what that is and
- 6 illustrate that for us, please?
- 7 That would be a report that would be
- received by the company from a wide variety of
- sources about a patient treated with the drug.
- 10 When I say wide variety of sources, it could be
- 11 from a physician treating the patient, a
- pharmacist who had heard about the patient, the
- patient, him or herself, a relative of the
- patient. Many different individuals that would
- 15 call us and report that a patient had experienced
- a particular event, a spontaneous adverse event.
- 17 Q. All right. Now --

- A. Which -- such as flu-like symptoms.
- 19 Now, so, in your diagram when you put an
- 20 X on the circle under the spontaneous column,
- 21 what is that intended to represent?
- 22 That's intended to represent that the
- 23 patient has had something that -- whoever the
- reporter was considered adverse in this case. 24
- 25 So, in this case flu-like.

- Q. Now, with a spontaneous report of an
- 2 individual taking a drug who reports experiencing
- 3 flu-like symptoms, what can -- what conclusions
- can you draw, if any, about whether the drug is
- somehow related to the flu-like symptoms?
- 6 A. Well, this does two things: One, what
- it does is alerts us to the fact that similar to
- this uncontrolled trial, we have an individual
- who was taking the drug who at the same time what
- 10 we call a temporal association was having
- 11 flu-like symptoms. Past that, we would draw no
- conclusions based on this -- on this report.
- Q. And why -- why could you not draw any 13
- conclusions about whether the drug caused the
- 15 flu-like symptoms in the spontaneous report?
- 16 A. It's because we really don't have a -- a
- 17 control group with which to make comparisons.
- 18 And this is particularly the case when you've got
- 19 something that would be relatively common in the
- 20 population that could be occurring due to a great
- 21 many possible causes, or what we call etiologies.
- 22 Q. Now, tell us, Dr. Beasley, suppose the
- 23 company received several or many spontaneous
- reports of -- following your example -- patients
- who took a drug and experienced flu-like
- Page 75
- 1 symptoms. And tell us what you're representing there.
- 3 This would be additional reports,
- spontaneous adverse event reports.
- 5 All right, now, tell us what
- conclusions, if any, can be drawn from the
- receipt of numerous spontaneous reports from
- these patients who took a drug and then
- 9 experienced flu-like symptoms.
- 10 A. Particularly with a common event, like
- 11 flu-like symptoms, we would not be able to draw,
- 12 again, any sort of -- of causal conclusion or
- association. It would certainly alert us to the
- 14 fact that these things, again, had been reported
- 15 in temporal association and would alert us to the
- 16 need to further investigate this -- what had been
- observed as a temporal link in clinical trials,
- in prospective studies, in a number of potential
- 19 ways.

2

- 20 Dr. Beasley, the diagram regarding the
- controlled clinical trial and spontaneous events,
- 22 we've not put an exhibit sticker on that.
- 23 Has that been marked as Beasley
- 24 Exhibit 5?
- 25 It's been marked 5. I don't see a

- "Beasley" on it.
- 2 O. Let's add that. Has it now been marked
- 3 as Beasley Exhibit 5?
- 4 Yes, it has been.
 - O. Let me hand you what we've marked as
- 6 Beasley Exhibit 6 and ask if you can identify
- 7 that.

5

- 8 A. Well, this is a Zyprexa label. Let
- 9 me --
- 10 Q. Can you look at the date on the last
- page and orient yourself? 11
- A. Let me look on the back. This is
- 13 marked -- this is dated 10/02/96. So I believe
- this would be the original label.
- 15 Q. Dr. Beasley, to whom is the product
- labeling or package insert directed?
- 17 This would be to the individuals who
- 18 would be prescribing the medication.
- 19 And who is it, Dr. Beasley, that decides
- 20 what information is included in the Zyprexa
- 21 labeling or package insert.
- 22 The FDA. A.
- 23 Q. Now, there have been questions during
- your deposition about weight gain as an adverse
- event observed in patients taking Zyprexa.

- Do you recall that? 1
- 2 A. Yes.
- 3 Q. Let me ask you to turn over to page 2 of
- Beasley Exhibit 6, and I want to ask you,
- generally, were prescribing physicians provided
- information on weight gain observed with Zyprexa
- 7
- in the original product labeling or package
- 8 insert?
- 9 A. Yes, they were.
- 10 Q. First, I want to direct you to Table 1
- 11 on the second page. Can you tell us what was --
- what information was provided about weight gain
- 13 as an observed adverse event with Zyprexa?
- 14 A. Well, again, this was both observed and
- 15 the information provided here was in reference to
- what was both observed and then reported as an
- 17 adverse event by the clinicians conducting the
- 18 studies.
- 19 And it was reported that weight
- 20 gain occurred, was reported in 6 percent of the
- 21 olanzapine-treated patients and 1 percent of the
- 22 placebo-treated patients. These data were the
- 23 aggregation or the combination of all the
- 24 placebo-controlled data on the medication.
- 25 Now, let me ask you to turn over to

- 1 the -- essentially, the next table over on the
- 2 next page. Do you see that one, called common
- 3 treatment, emergent adverse events?
- 4 A. Yes.

7

- 5 Q. And would you tell us, please, what's
- 6 reported about weight gain in that table?
 - A. Well, this is the table of -- that
- 8 represents what were called common or the most
- 9 common treatment adverse events that were
- 10 reported at 5 percent or greater. And this
- 11 reports the same numbers, weight gain 6 percent,
- 12 and placebo 1 percent.
- 13 Q. Now, if I could direct your attention to
- 14 the bottom of that page. And if you could tell
- 15 us: Is there additional information about weight
- 16 gain provided to the prescribing physician in the
- 17 original package insert for Zyprexa?
- 18 A. Yes, there is.
- 19 Q. Tell us what that is, please.
- 20 A. In addition to restating the information
- 21 regarding weight gain reported as an adverse
- 22 event, this is a summary of information regarding
- what was observed when patients were weighed on
- 24 scales to actually determine their weight.
- 25 And the first set of information

- provided that the greatest amount of weight gain
- 2 was seen in patients who, based on what we call
- 3 body mass index or BMI, with patients with the
- 4 lowest value for that at baseline.
- Q. Now, there's also been some question
- 6 during your deposition about the adverse events
- 7 of hyperglycemia and diabetes and diabetic
- 8 acidosis.

10

21

- 9 Do you recall that?
 - A. Yes, I do.
- 11 Q. Is there information about those adverse
- 12 events observed in patients taking Zyprexa
- 13 included in the original package insert?
- 14 A. They're listed in the other adverse
- 15 events observed during the premarketing
- 16 evaluation of olanzapine.
- 17 Q. And could you particularly let me
- 18 reference you to under that column, the column of
- 19 Endocrine System?
- 20 A. Yes.
 - Q. And can you tell us what is provided to
- 22 a prescribing physician regarding the information
- 23 about diabetes there?
- 24 A. That diabetes mellitus was observed
- 25 infrequently and that diabetic acidosis was

- 1 that is contained describes the olanzapine
- 2 patients compared to placebo patients during the
- 3 acute or short-term or six-week trials. And then
- 4 it -- excuse me -- it goes on to describe the
- 5 experience of all patients treated in the
- 6 longer-term extensions of all studies. And it
- 7 reports that the olanzapine-treated patients gain
- 8 an average of 2.8 kilograms compared to an
- 9 average of 0.4 kilogram loss in the placebo
- 10 patients. And that when we look at the 7 percent
- 11 or greater gain in body weight, that that was 29
- 12 percent of olanzapine-treated patients compared
- 13 to 3 percent of placebo-treated patients. And,
- 14 again, this is in the acute phase of the study.
- 15 Q. All right.
- 16 A. It goes on to describe the data to --
- 17 regarding long-term and, again, here's where all
- 18 patients were used with a -- what we call a
- 19 median or sort of a central point between the
- 20 fewest number of days and the longest number of
- 21 days of treatment being 238 days. And this
- 22 reports that 56 percent of patients gained 7
- 23 percent or greater of body weight and that the
- 24 average weight gain during this period was 5.4
- 25 kilograms. The additional information is

- 1 observed rarely.
- 2 Q. Now, could I refer you to the Metabolic
- 3 and Nutritional Disorder section and ask you the
- 4 same question: What information was provided in
- 5 that section regarding hyperglycemia observed in
- 6 patients taking Zyprexa?
- 7 A. In this section, hyperglycemia was
- 8 indicated to be an event that was observed with
- 9 an infrequent frequency.
- 10 Q. Now, Dr. Beasley, because these events
- 11 of hyperglycemia and diabetes and diabetic
- 12 acidosis are included in the package insert for
- 13 Zyprexa, does that mean Zyprexa causes them?
- 14 A. No. What that means is that they were
- 15 observed during the conduct of trials in patients
- 16 who were included in the clinical trials.
- Q. Dr. Beasley, why was information about
- 18 weight gain and hyperglycemia and diabetes
- 19 included in the original package insert for
- 20 Zvprexa?
- 21 A. That, along with the other information
- 22 that's provided here, is so that physicians take
- 23 the entirety of the information, judge, make the
- 24 risk/benefit analysis for use in their patients
- 25 and be aware of what had been observed.

1

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- 1 Q. Now, we've had some testimony from you 2 with respect to spontaneous reports of adverse 3 events.
- 4 Do you recall that?
- 5 A. Yes, I do.
- 6 Q. And did Lilly receive spontaneous
- 7 reports of adverse events from patients taking
- 3 Zyprexa after Zyprexa was approved and went on
- 9 the market?
- 10 A. Yes.
- 11 Q. Tell us, what did and does Lilly do, if
- 12 anything, to monitor its receipt of reports of
 - 3 adverse events?
- 14 A. Well, this would be the -- the primary
- 15 function of the pharmacovigilance and
- 16 pharmacoepidemiology department, or now global
- 17 product safety. And the first component is,
- 18 actually, taking and receiving the reports. So,
- 19 these are generally called in to us and entered
- 20 into computer systems by individuals.
- The next thing that is done with
- 22 this group of individuals would follow up on
- 23 these reports to attempt -- I really should
- 24 emphasize attempt -- to obtain additional
- 25 clinical information that might have been missing
 - Page 83
 - 1 from the -- the initial report when it
 - 2 was presented to the company.
 - 3 Q. What do the people at Lilly actually do
 - 4 to try to follow up spontaneous reports of
- 5 adverse events?
- 6 A. They can make telephone calls. They can
- 7 send letters. This is the -- this is the
- 8 collection process for the individual cases.
- 9 The next step in the -- in the
- 10 process is for these to be reviewed as -- as
- 11 groups of reports. And here there are physicians
- 12 and what we call surveillance scientists that
- 13 would be involved, along with
- 14 pharmacoepidemiologists. And there would be a
- 15 number of types of reports that would be -- that
- 16 would be prepared.
- There are periodic reports to the
- 18 Food & Drug Administration, periodic reports to
- 19 other regulatory agencies that -- that summarize
- 20 these -- these data. There is the potential for
- 21 what we would call ad hoc requests, meaning that
- 22 an agency would send a specific request outside
- 23 the -- the routine periodic reports for
- 24 information. And then the group could also
- 25 provide periodic internal review.

- Q. Let me ask you about that, specifically.
- 2 And after Zyprexa went on the
- 3 market and Lilly received reports of
- 4 hyperglycemia, in particular, was there any
- 5 particular internal review that Lilly performed
- 6 with respect to those events?
- 7 A. Well, there was a -- there was a
- 8 sequence of them. We had weekly or biweekly
- 9 meetings. Actually, the pharmacovigilance
- 10 function, the product team, the U.S. affiliate,
- 11 to discuss all adverse events that were being
- 12 observed.

16

- My first recollection of a -- of a
- 14 specific review of the topic of hyperglycemia
- 15 was, I think, sometime early in 1997.
 - Q. All right. And what was done at Lilly?
- 17 A. I think there was something on the order
- 18 of 10 to 15 cases, some with rather high
- 19 glucoses. We felt that we should obtain the
- 20 consultation from an
- 21 endocrinologist/diabetologist so these cases were
- 22 summarized and presented to one of our internal
- 23 diabetologists who then provided us with a -- a
- 24 verbal report.
- 25 Q. And what was the report with respect to

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- 1 the review of the spontaneous reports of
- 2 hypoglycemia at that time?
- 3 A. His belief was that the cases were
- 4 sufficiently confounded to make it impossible to
- 5 conclude that there was a causal association in
- 6 these -- in these cases he reviewed.
 - O. You've used the word "confounded."
- 8 Would you explain for us what that
- 9 means?

- 10 A. That would mean that there were
- 11 alternative -- multiple alternative risk factors
- 12 or frank causes, in his opinion, or that the
- 13 cases really did not show sufficient change to
- 14 constitute an event that would not be expected as
- just fluctuation in the normal course of apatient with diabetes.
- 17 Q. After that internal review of the
- 18 spontaneous reports of hyperglycemia, do you
- 19 recall, Dr. Beasley, whether Lilly received any
- 20 inquiry from a Dr. Wirshing with respect to that 21 topic?
- 22 A. I believe that we received a -- a
- 23 request for information from, at the time,
- 24 Dr. Donna Ames and her -- subsequently, her
- 25 husband, Dr. Wirshing. Our understanding was

- 1 that they were intending to potentially publish a
- 2 case series, and they were requesting information
- 3 from us on what had been observed in our clinical 4 trials.
- 5 Q. All right. What specifically did Drs.
- 6 Ames and Wirshing ask of Lilly, and how did Lilly 7 respond?
- 8 A. Well, they asked what data we had 9 pertinent to the -- to the topic.
- 10 Q. And did Lilly provide them with 11 anything?
- 12 A. My recollection is that we provided them
- 13 with a -- both a summary of the data from our
- 14 integrated summary of safety analysis, and I
- 15 believe that may have also included some summary
- 16 of -- of the post-marketing data, but I'm less
- 17 certain about that.
- 18 Q. All right. Let me hand you what I've
- 19 marked as Beasley Exhibit 7 and ask you if you
- 20 could recognize that and tell us what that is?
- 21 A. I need to --
- 22 Q. Surely. Take a look at it.
- A. Review of Glucose Changes in Patients
- 24 Treated With Olanzapine, and it says for Donna --
- 25 Donna Ames Wirshing. So, this was probably the

- 1 report that was provided. There's an internal 2 date of September, 1997.
- 3 It's a -- it's a fairly lengthy
- 4 document. It appears to be, again, based on our
- 5 integrated summary of -- of safety, some of the
- 6 analysis that we talked about. And let me see if
- ' there are -- just integrated database.
- We also appear to provide them with a reference -- a reference list. So this would
- 10 be information from both the -- the
- 11 haloperidol-controlled clinical trials and the
- 12 placebo-controlled clinical trials and a --
- 13 copies of a literature search on the topic.
- 14 Q. And, to your knowledge, Dr. Beasley, did
- 15 Drs. Ames and Wirshing eventually publish?
- 16 A. This was an article I think we discussed
- 17 yesterday in which they reported on a series of
- 18 cases that they had observed.
- 19 Q. Dr. Beasley, at the time Lilly pulled
- 20 together the information contained in what we've
- 21 marked as Beasley Exhibit 7, what were the
- 22 conclusions that were permitted by the data that
- 23 Lilly had with respect to whether Zyprexa was
- 24 causally related to hyperglycemia?
- A. Well, given the data that we had at the

- time of our submissions which are reflected here, we did not see an association.
- 3 And what we indicate that, given
- 4 the exposure we -- it was considered that the
- 5 number of events reported was actually quite
- 6 small, and that post-marketing spontaneous
- 7 adverse event reports of alterations in blood
- 8 glucose are consistent with the safety profile
- 9 observed in the clinical trials.
 - Q. Now, Dr. Beasley, you, I think,
- 11 previously gave testimony that you were involved
- 12 directly and primarily regarding Zyprexa through
- 13 the early part or some early part of 2001; is
- 14 that -- am I correct in that?
- 15 A. 2000 -- I had very direct involvement
- 16 through early 2001. I had more focused
- 17 involvement in that period from 1997 through
- 18 2001.

10

- 19 Q. And toward the end of your direct
- 20 involvement with Zyprexa, were you involved in
- any review, overall review of the Zyprexa data?
- 22 A. Yes. I think this is something that we
- 23 have discussed, that there was a large review
- 24 undertaken primarily initiated out of both
- 25 pharmacovigilance and myself representing the

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- 1 team that I have referred to as the Beasley/Kwong
- 2 analysis, I believe.3 The work actually extended over a
- 4 significant period of time with a lot of
- 5 individuals involved in actual completion of that
- 6 work that was ultimately submitted to the Food &
- 7 Drug Administration.
- 8 Q. All right. Let me hand you what's been
- 9 marked as Beasley Exhibit No. 10, which is a
- 10 rather large document that I'll put in front of
- 11 you.

- Can you look at that and tell us
- 13 what that is, please?
- 14 A. The cover letter says: Response to FDA
- 15 request. Enclosed is our response to your May,
- 16 2000 letter requesting information about
- 17 olanzapine. This -- this review had been, again,
- 18 internally initiated and not in response to a
- 19 request from -- from FDA, but toward the end of
- 20 its preparation, such a request arrived. So,
- 21 this document was provided to them.
- 22 Q. All right. Now, can you tell us,
- 23 Dr. Beasley, what was involved and what kinds of
- 24 data were included in the overall review that
- 25 resulted in the document submitted to the FDA

- 1 we've marked as Beasley Exhibit 10?
- 2 A. There were a number of different aspects
- 3 of data included. The ones that I'm most
- 4 familiar with are the analysis of the clinical
- 5 trial data, but also the spontaneous adverse
- 6 event data. I believe this also includes a -- a
- 7 review of the literature, both clinical and
- 8 preclinical. And given that it was submitted to
- 9 the FDA, I believe it would have included
- 10 regulatory correspondence regarding hyperglycemia
- 11 and diabetes as well.
- 12 Q. And, Dr. Beasley, based upon the review
- 13 that you participated in and submitted to the FDA
- 14 that we've marked as Beasley Exhibit 10, can you
- 15 tell us the date of that submission?
- 16 A. This would have been -- let's see -- the
- 17 cover letter, but also let me see if I can --
- 18 would have been July of 2000.
- 19 Q. Now, based upon the review that was
- 20 submitted to FDA in July of 2000, Dr. Beasley,
- 21 were any conclusions possible with respect to the
- 22 question whether Zyprexa is causally related to
- 23 hyperglycemia and diabetes?
- A. Taking the data in -- in total, all the
- 25 extensive material, we believe that the data did

- 1 pathophysiology together, or abnormalities in the
- 2 body is what pathophysiology means. One is
- 3 the -- the failure of what we call the insulin
- 4 receptor. And this is a -- a molecule on cells
- 5 in the body that insulin, which is a hormone,
- 6 interacts with to allow glucose to move into the
- 7 cells. So you've got to have this receptor
- 8 working right in order for glucose to move into
- 9 the cells so that you lower blood glucose levels
- 10 and the cells are able to use glucose as energy.
- 11 Q. Are you familiar with the term,
- 12 Dr. Beasley, insulin sensitivity?
- 13 A. Yes.
- 14 Q. Tell me what that means.
- 15 A. That would be a measure of how well
- 16 these insulin receptors work.
- 17 Q. All right.
- 18 A. The other thing that is thought to be
- 19 necessary for the development of type 2 diabetes,
- 20 clinical type 2 diabetes, would be the failure of
- 21 the pancreas, which is an organ that sits in
- 22 the -- in the abdominal cavity, close to the
- 23 stomach, to put out sufficient amounts of
- 24 insulin.

25

The pancreas is signaled to release

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not support an association between the drug and

2 hyperglycemia/diabetes.

3 Q. All right. Thank you, Dr. Beasley.

4 Now, in addition to Lilly's review

- 5 of the spontaneous reported data and Lilly's
- 6 review and analysis of the controlled clinical
- 7 trials with Zyprexa, were there other different
- 8 types of studies that looked at the specific
- 9 question whether Zyprexa was exerting some direct
- 10 effect to cause hyperglycemia?
- 11 A. There were a large number of studies and
- 12 activities going on both clinically and
- 13 preclinically under this group that Dr. Breier
- 14 had organized. I'm most familiar with two
- 15 studies that were conducted in humans referred to
- 16 as clamp studies.
- 17 Q. All right. First, tell us -- you said
- 18 there were two studies referred to as clamp
- 19 studies?
- 20 A. That's correct.
- 21 Q. All right. Tell us, first, what was it
- 22 that the two clamp studies were directed at
- 23 looking at?
- A. Okay. Type 2 diabetes is thought to be
- 25 caused by two types of what we call

- 1 insulin when glucose is high in the blood. It
- 2 releases this insulin, goes to insulin receptors,
- 3 and this allows glucose to be transported into
- 4 cells. So, the thinking is to be frankly or
- 5 actual clinical type 2 diabetes, you have to have
- 6 failure of the insulin receptor, decreased
- 7 insulin sensitivity, and a decrease in the
- 8 pancreas' ability to make enough insulin to
- 9 compensate for poor insulin sensitivity.
- 10 Q. All right. Let me ask you, first,
- 11 about -- actually the second thing you mentioned.
- 12 That is the failure of the pancreas to actually
- 13 produce insulin or to produce enough insulin.
- 14 Was there one of the clamp studies directed at
- 15 that question?
- 16 A. Yes, there was. And, again, why did we
- 17 take on these studies? The thinking behind this
 - 8 was that it was important to us to do a study
- 19 that would look at whether or not olanzapine was
- 20 causing the effects in the body that would lead
- 21 to type 2 diabetes. So, that was the purpose
- 22 in -- in doing the studies.
- 23 Q. Now, first, I want to ask you to
- 24 describe the clamp study that was directed at the
 - question whether Zyprexa exerted some adverse

- 1 effect that would cause the pancreas not to
- produce insulin or not to produce enough insulin?
- 3 A. Uh-huh.
- 4 Q. First, tell us what was that study
- called and how did you perform it?
- 6 That's a hyperglycemic clamp study.
- 7 And please tell us in layperson's
- language how that's done.
- 9 A. First of all, you have your parallel
- 10 treatment groups as we've talked about this
- 11 morning. You have -- in this case it was
- 12 placebo, another antipsychotic, and olanzapine.
- And before patients receive -- or, actually,
- 14 these are what we call normal volunteers. These
- 15 were healthy -- healthy subjects. They were
- tested. And the way they were tested was by this
- 17 thing that's called a hyperglycemic clamp.
- 18 They have an intravenous line
- 19 inserted into their arm. They are then given
- 20 glucose, actually large --
- 21 Q. Glucose is what?
- 22 Sugar. Large amounts of glucose, blood
- 23 sugar, into this line into their body. And then
- the pancreas has the opportunity to react to
- this. And what is measured is the amount of

- Beasley Exhibit 11.
- 2 A. Actually, it's not -- you need to add 3 the Beasley.
- 4 Q. Let me write the Beasley on it. Sorry.
 - Let me hand you what's been marked
- as Beasley Deposition 11. And can you tell us
- 7 what that is, please?
- 8 This would be the academic publication
- 9 regarding the results of the -- the study we've
- 10 just discussed.

5

- 11 Q. Now, Dr. Beasley, tell us, what did the
- 12 results show of the study done by Lilly to see
- whether Zyprexa exerted an adverse influence on
- the pancreas such that the pancreas produced a
- 15 little or insufficient insulin?
- 16 The results are summarized in the -- in
- 17 the last paragraph of the abstract. We found no
 - evidence that treatment of healthy volunteers
- with olanzapine or the other drug -- left that
- one out, decreased the insulin secretory response
- to a prolonged hyperglycemic challenge. The
- results of this study do not support the
- 23 hypothesis that olanzapine or the other drug
- 24 directly impair pancreatic beta cell function.
- 25 Q. All right. Dr. Beasley, let me ask you,

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- 1 insulin that the body produces in response to this -- this extra glucose. Then the patients,
- are -- or the subjects are treated.
- Q. When you say "treated," what do you
- mean?
- They receive double-blind either 6
- placebo, olanzapine or this other medication. In
- this case, they received it for two weeks, and
- then they were retested. I think it's probably
- 10 worth stating that -- that this -- this type of
- 11 sophisticated study was -- I did not design this
- 12 study.
- 13 Q. Who did design it?
- 14 This would have been designed by our
- endocrinology colleagues. 15
- 16 Q. All right, Dr. Beasley, before we
- changed the tape I was asking you about the 17
- hyperglycemic clamp study. Now, let me just ask:
- 19 Were the results of the study performed by Lilly
- 20 looking at whether Zyprexa exerted an adverse
- 21 effect on the pancreas to produce insulin -- were
- 22 the results of that study published?
- 23 They were published in a peer-reviewed Α.
- 24 journal.
- 25 Let me hand you what's been marked as

- this hyperglycemic clamp study methodology, is
- that a recognized methodology to look at the
- question whether the pancreas is affected to
- produce insufficient or no insulin?
- 5 That's my understanding from my
- 6 endocrine colleagues.
- 7 Now, Dr. Beasley, turning to the second
- prong of these clamp studies, did Lilly perform a
- 9 study looking at the question of whether Zyprexa
- 10 produced insulin insensitivity?
- 11 A. Yes, that was what was referred to as
- 12 the euglycemic clamp study.
- 13 Q. Just a moment. Do we have some more
- 14 exhibit stickers, by any chance? If not, I'll
- 15 iust --

16 All right, the euglycemic clamp

- 17 study, now, can you tell us, again, in
 - layperson's language, what was the euglycemic
- 19 clamp study looking at?
- 20 A. Well, this looks at insulin receptor
- 21 sensitivity. And here in contrast to the last
- study, you first give a lot of insulin, and you
- 23 also give some glucose. And you determine, 24 essentially, how much glucose you can give at a
 - fixed amount of insulin and how well the body

- 1 uses that amount of glucose.
- 2 Q. Let me hand you what we've marked as
- 3 Beasley Exhibit 12 and ask, first, were the
- 4 results of the euglycemic clamp study performed
- 5 by Lilly published?
- 6 A. Yes, they were.
- Q. All right. Now, let me ask you to lookat Beasley Exhibit 12.
- 9 Can you tell us what that is?
- 10 A. This would be the academic publication
- 11 of the -- of the study that we've just discussed.
- 12 Q. Can you tell us, Dr. Beasley, what were
- 13 the results of the euglycemic clamp study
- 14 performed by Lilly to look at the question
- 15 whether Zyprexa affected insulin sensitivity?
- 16 A. That's probably, again, best summarized
- 17 in the abstract, in the last part of the
- 18 abstract. In summary, this study did not
- 19 demonstrate significant changes in insulin
- 20 sensitivity in healthy subjects after three weeks
- 21 of treatment with olanzapine or a --
- 22 Q. Now, Dr. Beasley, given the results of
- 23 the two clamp studies performed by Lilly, based
- 24 upon the results of those studies, what
- 25 conclusions, if any, did Lilly draw regarding
 - ıng
 - Page 99
 - 1 whether Zyprexa demonstrated a causal and a
 - 2 mechanistic effect on producing type 2 diabetes?
 - 3 A. Well, these studies certainly did not
 - 4 support the hypothesis that olanzapine was
 - 5 causing either type of pathophysiology that would
 - 6 cause diabetes. It was not causing the things
 - 7 that would cause diabetes in these two studies.
 - 8 Q. Dr. Beasley, do you know the general
 - 9 recommendations from the American Diabetes
- 10 Association with respect to screening blood
- 11 glucose for type 2 diabetes?
- 12 A. I -- I believe that I do.
- 13 Q. All right. Can you tell us what those
- 14 are?
- 15 A. I think it's a recommendation of a
- 16 fasting blood glucose every three years at age 45
- 17 and older. And I believe there is some
- 18 discussion about if an individual is obese and
- 19 has other risk factors, conducting these
- 20 investigations or blood tests at an earlier age.
- 21 Q. And those recommendations by the
- 22 American Diabetes Association for screening blood
- 23 glucose for type 2 diabetes, to whom do they
- 24 apply?
- 25 A. Well, all Americans. I mean, they --

- 1 that's a universal healthcare recommendation by
- 2 this -- by this organization.
- 3 Q. So, I mean, do they apply whether the
- 4 person is suffering from schizophrenia?
- A. Yes.

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- 6 Q. Or do they apply in people who are not
- 7 suffering from schizophrenia?
 - A. To my understanding, yes. They don't
- 9 draw any -- any distinction. The only -- the
- 10 only distinctions are the -- the age cutoff, and
- 11 then earlier if risk factors are present.
- 12 Q. And would those general recommendations
- 13 regarding screening for type 2 diabetes by
- 14 looking at blood glucose, would that apply to
- 15 people who were taking antipsychotic medication
- 16 like Zyprexa?
- 17 A. They would apply to -- as we've said, to
- 18 anyone. I mean, again, irrespective of their --
- 19 of their health status with the exception of
- 20 this -- of this age cutoff.
- 21 Q. And let me just ask: Would the general
- 22 recommendations of the American Diabetes
- 23 Association to have a screening for type 2
- 24 diabetes by looking at blood glucose also apply
- 25 to people who were not taking antipsychotic

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- 1 medication like Zyprexa?
- 2 A. Yes.

5

- 3 Q. Let me hand you what's marked as Exhibit
- 4 13, Dr. Beasley.
 - Can you tell us what that is?
- 6 A. Do you want to --
- 7 Q. I beg your pardon. I keep forgetting to
- 8 write "Beasley" on there.
- 9 Let me hand you what's marked as
- Beasley Deposition Exhibit 13. Can you make
- 11 reference to the date on the last page, and then
- 12 tell us what that is?
- 13 A. Well, it's a -- it's a Zyprexa package
- 14 insert, and I'll need to check the date.
 - I see a copyright 2006 date here.
- 16 Literature revised as of March 20, 2006. So,
- 17 this was the package insert that was approved as
- 18 of that date.
- 19 Q. All right. Could you turn to page 8 of 20 that document, please?
- 21 A. Yes.
- Q. And, in particular, I want to ask you
- 23 about certain language contained in the warning
- 24 section related to hyperglycemia and diabetes
- 25 mellitus.

7

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18

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- 1 Do you see that?
- 2 A. Yes, I do.
- 3 Q. All right. Now, could you read the
- 4 first three sentences of that for us, please?
 - A. Yes. Hyperglycemia, in some cases
- 6 extreme and associated with ketoacidosis or
- hyperosmolar coma or death, has been reported in
- patients treated with atypical antipsychotics,
- 9 including olanzapine. Assessment of the
- 10 relationship between atypical antipsychotic use
- 11 and glucose abnormalities is complicated by the
- 12 possibility of an increased background risk of
- diabetes mellitus in patients with schizophrenia
- and the increasing incidence of diabetes mellitus
- 15 in the general population.
- 16 Given these confounds, the
- 17 relationship between atypical antipsychotic use
- 18 and hyperglycemia-related adverse events is not
- 19 completely understood.
- 20 Q. Let me first ask you, Dr. Beasley, the
- 21 reference there to an increased background risk
- 22 of diabetes mellitus in patients with
- 23 schizophrenia. Can you explain for us in
- 24 layperson's language what that means?
- 25 A. I believe it means what we were

- things we like to do in studies is to blind them
- 2 so in order to prevent -- what's the word?
- 3 A. Bias.
- 4 Q. Bias.
- 5 A. On reporting by the investigator or the 6 patient.
 - Q. And how does blinding prevent bias?
 - That prevents the -- both the -- both
- 9 the investigator and the patient from knowing the
- medication they're on and because of knowing the
- 11 medication they're on, making assumptions or
- 12 coming to beliefs about what they're experiencing
- 13 and then reporting it.
- 14 Right. If you blind the study, if the
- 15 individual does not know, the doctor doesn't
- 16 know, such as a researcher, right?
- 17 A. Correct.
 - Ο. And the patient doesn't know which
- 19 medication they're taking, you're more likely to
- 20 get an objective as opposed to a subjective
- 21 biased analysis, correct?
- 22 That's correct. That is the intent of Α.
- 23 blinding.
- 24 MR. LEHNER: That concludes that
- 25 portion, Your Honor. I think there's a couple

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- 1 discussing yesterday, that there is the belief, understanding, and data to support that a higher
- percentage of individuals with schizophrenia and
- without schizophrenia, everything else being
- equal, would have diabetes.
- Q. And then making reference to the
- increasing incidence of diabetes mellitus in the
- general population. Can you explain in
- layperson's language what that means?
- 10 A. I understand that to mean that there is
- 11 a continuing increase in the number of new cases
- 12 of diabetes being observed every year. So that
- 13 it's becoming more frequent in the population.
- 14 Q. All right. And in the second sentence,
- 15 is it those two things that are referred to as
- confounders?
- 17 A. Those two things would be confounders,
- 18 given these confounders.
- 19 Q. Now, can you tell us just in layperson's
- 20 language, what does "confounder" mean?
- 21 A. That means things that are present that
- 22 make sort of understanding or interpretation
- 23 difficult or impossible.
- 24 And by the way, you told Mr. See
- 25 something on direct examination that one of the

- minutes that the Plaintiffs have.
- 2 MR. ALLEN: You're passing the
- 3 witness?
- 4 MR. LEHNER: Yes. We'll have you
- play your section.
- 6 MR. ALLEN: Your Honor, the State
- 7 of Alaska has two minutes and 16 seconds in
- 8 cross.

9

- THE COURT: Why don't you do that
- 10 and we'll keep on moving.
 - **CROSS-EXAMINATION**
- 12 (BY MR. ALLEN) When you testified to me
- 13 earlier today and yesterday, was your testimony
- 14 truthful and accurate?
- 15 A. Yes, it was.
- 16 Q. And when you wrote your e-mails
- 17 concerning the clinical trials to the people
- 18 throughout Eli Lilly, were your e-mails truthful
- 19 and accurate?
- 20 A. To the best of my knowledge, those data
- 21 were correct at the time I wrote them.
- 22 Q. And by the way, you also made it clear
- 23 today and I don't think you discussed it with
- your lawyer. If I'm not mistaken, you said by 24
- 25 1999, in Europe, that hyperglycemia and diabetes

Page 108 Page 106 1 was in the equivalent of the warning section? 1 Exhibit 2175 --2 2 Yes, it was. THE COURT: Let's take them one at So, by 1999 the patients and doctors 3 a time and see if there's --4 4 over in Europe were being warned about MR. SUGGS: No objection to 2169, 5 hyperglycemia and diabetes? Your Honor. A. There was a warning slash precautions in 6 THE COURT: EL2169 is admitted. 7 that label written in Europe. MR. LEHNER: The next exhibit would Q. And where is the warning in the United be -- is marked as EL2175. It was referred to in States package insert like Europe's in 1999 on 9 Dr. Beasley's deposition as No. 11, and that is hyperglycemia and diabetes? 10 10 the article published in the Journal of Clinical 11 Α. There is not one. 11 Endocrinology and Metabolism, entitled 12 Q. Where is that black-box warning on 12 Hyperglycemia Clamp Assessment of Insulin 13 Zyprexa in 2002 like Japan had concerning 13 Secretory Responses in Normal Subjects Treated 14 hyperglycemia, diabetes, diabetic ketoacidosis? 14 with Olanzapine, Risperidone and Placebo, by 15 A. There is not one. 15 Sowell, et al. 16 16 Q. Is there any particular reason why Eli MR. SUGGS: Your Honor, we object 17 Lilly and the doctors in the United States should 17 to that in light of the Court's rulings on published medical articles. be treated differently than the doctors in Japan 18 19 and Europe? 19 MR. LEHNER: Your Honor, I think 20 A. From our perspective and my perspective 20 what we've been doing is in conjunction with 21 we were, in fact, labeling the molecule previous articles publishing these to the 22 appropriately. There are clearly differences in jury and consistent with the Alaska Rule on 23 the labeling. Different countries evaluate 23 medical articles. THE COURT: Counsel, please 24 materials differently and have different 24 25 interests in their package insert. 25 approach. Page 107 Page 109 Q. Lilly's interest is the same throughout 1 (Bench discussion.) the world, isn't it? 2 MR. LEHNER: We had these marked 3 A. Yes. 3 for identification --4 Q. You want to give the doctors in the THE COURT: Previous articles that United States the same information in the same the State was introduced were introduced for manner you give doctors over in France, don't 6 notice purposes. Why isn't this introduced --7 7 MR. LEHNER: Notice of what? These you? 8 A. Absolutely. 8 are really beyond notice. 9 Q. You want to give doctors in Japan the 9 THE COURT: They aren't necessarily 10 notice. same information you give doctors in the United States and vice versa, don't you? 11 MR. LEHNER: These are Lilly's A. Yes. 12 studies, too. It's work that Lilly has done. I 13 think it's more than notice.

11 12 13 MR. ALLEN: Your Honor, that 14 concludes our offer. MR. LEHNER: We'll take down the 15 screen and I'll offer some exhibits. 16 17 THE COURT: Sure. 18 MR. LEHNER: Your Honor, at this 19 time on behalf of Eli Lilly I'd like to introduce into evidence what's been marked as EL2169. It 20 21 was referred to as Beasley No. 7 in his 22 deposition. That's a review of glucose changes

23 in patients treated with olanzapine September,

25 team.

24 1997 for Donna Ames Wirshing, customer response

14 MR. SUGGS: They're not notice of a 15 potential problem. 16 MR. LEHNER: They're not notice. 17 This is work that they did -- this is Lilly. 18 MR. SUGGS: You're offering them 19 for the truth of the matter asserted? 20 MR. LEHNER: Sure. It's a 21 published medical article. You can contest the truth of the matter asserted within them, if you 23 want to. This is Lilly's work. MR. SUGGS: I thought the Court's 24 25 prior ruling was that with respect to --

Page 112 Page 110 1 THE COURT: The normal rule for 1 identification -published treatises is you talk about them, you 2 THE COURT: I don't know if there's can recognize them, you can do that, but you a relevance question about time with those, but don't admit them unless there's some other you certainly can come in --5 reason. MR. SUGGS: Our cause of action precedes a day -- one of the studies was 2007. I 6 MR. LEHNER: That would be true. I agree for articles that are not written by the believe there was another one that was 2006. 7 8 company that are not based upon the company's own THE COURT: We can look at it with work. They are being admitted as this is Lilly's 9 respect to the time of the label. 10 work. This is Lilly's efforts to produce. You 10 I'll admit 2175. 11 can contest whether they're true or not. 11 (End of bench discussion.) THE COURT: Why isn't it a business 12 12 THE COURT: 2175 is admitted, and 13 record? 13 objections are preserved. MR. SUGGS: Same ruling with 2176. 14 MR. SUGGS: I don't -- I don't 14 think the company, Eli Lilly's in the business of 15 THE COURT: Same ruling as to 2176, 15 writing published medical articles. that must be admitted with the objections 16 16 17 THE COURT: Well, they do have to 17 preserved. 18 18 MR. LEHNER: So Your Honor, I will do research on their drugs. 19 MR. SUGGS: The reason for the rule 19 move 2175 and 2176, which is the Evaluation of 20 is because -- the rules recognize documents like Insulin Sensitivity in Healthy Volunteers Treated this and published medical articles should not be with Olanzapine, Risperidone and Placebo, given more weight. They carry with them sort of published in The Journal of Clinical a mantle and that's why you can talk about them, 23 Endocrinology and Metabolism. 23 but they don't go to the jury. 24 THE COURT: I think I just admitted 24 2.5 MR. LEHNER: That would certainly 25 2175 and 2176 with objections preserved, and Page 111 Page 113 1 be true for articles done by third parties, but those documents may be published. MR. LEHNER: Thank you very much. this is based on Lilly research, and as 2 3 3 Dr. Beasley testified, a large component -- and THE COURT: Who is your next as others have testified previously -- a large 4 witness, Mr. Lehner? 5 component of what these companies do --MR. KANTRA: Your Honor, Eli Lilly 6 MR. SUGGS: I don't see anything in 6 and Company would call Dr. Robert Baker to the 7 the rule that draws the conclusion of what goes stand. 8 8 to the jury or not --THE COURT: Mr. Kantra, you'll be 9 THE COURT: I'm going to admit the 9 examining Dr. Baker? 10 articles, to the extent that information Lilly 10 MR. KANTRA: I will be. 11 had or didn't have is an essential element of 11 THE COURT: Dr. Baker, if you'll 12 this case and both articles that were otherwise 12 please remain standing and we'll get you sworn. 13 doing that -- it goes to -- it -- there's both a 13 (Dr. Robert Baker sworn.) 14 business record component of it, but it -- I 14 THE CLERK: For the record, sir. 15 would also find there's a reliability to the 15 please state your full name, spelling your first 16 extent that Lilly had this article and knew about 16 and last name. 17 it, that's -- that's a relevant issue as well to 17 THE WITNESS: It is Robert Baker. 18 the defense, and --18 R-o-b-e-r-t, B-a-k-e-r. 19 MR. SUGGS: I understand your 19 THE CLERK: Thank you, sir. 20 THE COURT: Please be seated. 20 ruling, Your Honor. If that is the case, would 21 the Court be open to our on rebuttal offering the 21 Mr. Kantra. 22 22 later clamp studies as notice? DIRECT EXAMINATION

23

25

24 Baker.

A.

Hi.

23

25

24 in.

MR. LEHNER: They may already be

MR. SUGGS: We had them marked as

Q. (BY MR. KANTRA) Good morning, Dr.

- 1 Q. Where do you work?
- 2 A. I work at Eli Lilly and Company in
- 3 Indianapolis.
- 4 Q. How long have you been working there?
- 5 A. For eight years.
- 6 Q. What type of work do you do?
- 7 A. I'm a physician and I'm currently
- 8 supervising the other physicians who oversee the
- 9 safety of Lilly's products.
- 10 Q. Is that all of Lilly's products?
- 11 A. Yes, all of our products, all
- 12 therapeutic areas.
- 13 Q. Does that include Zyprexa as well?
- 14 A. It does.
- 15 Q. How many safety physicians do you
- 16 supervise?
- 17 A. About 25.
- 18 Q. During the time that you've been working
- 19 at Lilly, was there a time where your
- 20 responsibilities focused primarily on Zyprexa?
- 21 A. Yes, that's what I did when I started at
- 22 the company.
- 23 Q. And can you describe the nature of your
- 24 work on Zyprexa when you first joined the
- 25 company?

- A. Yes. I was responsible for working on
- 2 Zyprexa's use in bipolar mania and particularly
- 3 in helping to understand and communicate about
- 4 that with physicians in the United States.
- 5 Q. And when you say communicating with
- 6 physicians, can you say a little bit more about
- 7 the nature of your job responsibility as it
- 8 involved talking with physicians outside the
- 9 company?
- 10 A. Yes. I was employed in the U.S. medical
- 11 part of Lilly, and our job there was coming in as
- 12 people who had practiced as physicians in the
- 13 U.S. to understand about practice and the sort of
- 14 questions and needs that doctors had, and couple
- 15 that with expertise that we got from the company
- 16 about our drugs, in order to be able to answer
- directly sometimes questions for them and also
- 18 work with our marketing department and other
- 19 groups who were preparing information to
- 20 communicate with doctors.
- Q. And as part of your responsibilities at
- 22 Lilly when you joined, were you responsible for
- 23 understanding and having a general overall
- 24 appreciation for how Zyprexa was developed as a
- 25 drug before FDA approved it in 1996?

- 1 A. Yes.
- 2 Q. I understand that you were promoted to
- 3 medical director of the neuroscience group in
- 4 2005; is that correct?
- 5 A. Yes, that's right.
- 6 Q. And in that capacity, did you still have
- 7 responsibility for Zyprexa?
- 8 A. Yes. That, along with the other
- 9 neuroscience psychiatry products that Lilly had
- 10 in the U.S.
- 11 Q. And then when did you take your current
- 12 position in the safety group at Lilly?
- 13 A. I was promoted into this job toward the
- 14 end of 2006.
- 15 Q. And in your work on behalf of Eli Lilly
- 16 and Company, did part of your -- do part of your
- 17 responsibilities include reading and
- 18 understanding the literature as it relates to
- 19 Zyprexa and diabetes?
- 20 A. Yes.
- 21 Q. And is part of the reason for your
- 22 understanding the need for your understanding in
- 23 that regard so that you can communicate with
- 24 physicians outside the company with respect to
- 25 Lilly's understanding of those studies and

- 1 articles?
- 2 A. That's part of it, yes.
- 3 Q. So, before we talk more about your work
- 4 specifically on Zyprexa, I want to help the jury
- 5 understand what you did before you came to Lilly.
- 6 And so tell us where you graduated
- 7 from medical school.
- 8 A. Northwestern University in Chicago.
- 9 Q. And you had a year of general medicine
- 10 internship after that; is that right?
- 11 A. Yes, at the University of Pittsburgh.
- 12 Q. And that was followed by a residency in
- 13 psychiatry?
- 14 A. Yes.
- 15 Q. And where did you do that residency in
- 16 psychiatry?
- 17 A. That was also at the University of
- 18 Pittsburgh.
- 19 Q. Do you have a specialty that you have
- 20 developed and been board certified in?
- 21 A. Yes. That's psychiatry.
- Q. And why did you want to become a
- 23 psychiatrist?
- 24 A. Well, I -- I was planning to be a
- 25 psychiatrist when I came to medical school. My

- 1 father was a psychiatrist.
- 2 And as I grew up, he'd take me
- 3 sometimes along with him to the hospital or to
- 4 the office, and I'd see at church or other places
- 5 people would talk to him about how he helped them
- 6 or the family members. So I think that that's
- 7 what made me interested in it. And then once I
- 8 got to medical school, I wavered a little bit.
- 9 But once I started seeing patients with mental
- 10 illness, that's what I thought my calling was.
- 11 Q. When you finished your training, your
- 12 residency in psychiatry, where did you go to
- 13 work?
- 14 A. My first job out of training was for the
- 15 Commonwealth of Pennsylvania. I worked at the
- 16 State hospital for Pennsylvania for the first
- 17 three years after I graduated.
- 18 Q. Can you describe for the jury the type
- 19 of patients you treated at the State hospital in
- 20 Pennsylvania?
- 21 A. Sure. In Pennsylvania, the State
- 22 hospital would be for people who are very sick or
- 23 who weren't getting better in other settings.
- 24 So, when I was working there, people wouldn't
- 25 even come into our hospital unless they'd been in

- 1 clinical trials involving Zyprexa?
- 2 A. Yes.
- 3 O. And that would have been one of the
- 4 trials that actually supported the approval by
- 5 FDA?
- 6 A. Yes.
- 7 Q. In your work on clinical trials, did you
- 8 participate in clinical trials that occurred
- 9 during different phases of development?
- 10 A. Yes.
- 11 Q. So you participated in phase 2 and phase
- 12 3 clinical trials; is that right?
- 13 A. Phase 3 and phase 4.
- 14 Q. After you finished working or while you
- 15 were working at the State hospital in
- 16 Pennsylvania, did you also do work at an
- 17 institution called the Western Psychiatric
- 18 Institute?
- 19 A. Yes. Western Psychiatric Institute was
- 20 the hospital or the setting of the University of
- 21 Pittsburgh Psychiatry Department. So after my
- 22 first three years working in the State hospital,
- 23 I moved into a faculty job at the University of
- 24 Pittsburgh, although in that role continued to
- 25 work for the next six or seven years still doing

- 1 some other hospital for a few weeks and weren't
- 2 getting better. So they tended to be people who
- 3 were quite ill, and probably the majority of them
- 4 were probably people with schizophrenia, but
- 5 other disorders as well.
- 6 O. Did those other disorders include
- 7 bipolar disorder?
- 8 A. Yes.
- 9 Q. While you working at this State hospital
- 10 in Pennsylvania, did you have an opportunity to
- 11 participate in clinical trials of antipsychotic
- 12 medications?
- 13 A. Yes.
- 14 Q. And did those clinical trials involve
- 15 patients with schizophrenia?
- 16 A. Yes.
- Q. Did the drugs that you were evaluating
- 18 in those clinical trials include all of the
- 19 approved atypical antipsychotics at the time you
- 20 joined Lilly?
- 21 A. Yes, all of those, plus another one,
- 22 Sertindole, that had never been approved in the
- 23 United States.
- Q. And that would have included, then, I
- 25 assume from your answer that you did work on

- 1 some work at the same State hospital.
- 2 Q. And did you work -- did you develop a
- 3 schizophrenia research program during the time
- 4 you were affiliated with the State hospital?
- 5 A. That's right. The work I was doing at
- 6 the State hospital was at a research unit that
- 7 was jointly sponsored by the State of
- 8 Pennsylvania and by the University of Pittsburgh,
- 9 and I directed that.
- 10 Q. After you finished your work both at the
- 11 State hospital and WPI, you moved on then to the
- 12 University of Mississippi; is that right?
- 13 A. Yes.
- 14 Q. And can you tell the jury what you did
- 15 while you were at the University of Mississippi
- 16 Medical School?
- 17 A. I was there for three years and I would
 - 8 supervise the university's inpatient psychiatry
- 19 facilities and also their psychopharmacology
- 20 research that was ongoing.
- 21 Q. And you were at the University of
- 22 Mississippi until when?
- 23 A. Until -- until 1999.
- Q. So when you joined Lilly, you had been a
- 25 practicing psychiatrist for about 12 years; is

- 1 that right?
- 2 A. Yes. I finished my training in '86, so
- 3 13 years.
- 4 Q. In addition to the responsibilities
- you've already described with respect to Zyprexa
- 6 and then your safety work at Lilly, have you also
- 7 been involved in committee work at Lilly that has
- 8 watched over the movement of new products that
- 9 are in development from the preclinical phase,
- 10 before they go into humans into the clinical
- 11 trial phase?
- 12 A. Yes.
- 13 Q. Okay. And are you generally familiar,
- 14 then, with the process by which a drug moves from
- 15 discovery to preclinical to clinical trials?
- 16 A. Yes.
- 17 Q. Okay.
- And can you tell the jury, then,
- 19 just briefly, what it is that happens after a
- 20 drug is identified for testing? What is the
- 21 first kind of testing that happens with respect
- 22 to a new compound?
- 23 A. Sure. After a potential drug, a drug
- 24 that we're hoping could be useful for patients is
- 25 synthesized, all the first testing takes place in

- 1 before we test the medicine in humans, we
- 2 would -- we would make contact and talk with the

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- 3 regulatory groups that are overseeing the use.
- 4 So, if we wanted to test it in the United States
- 5 or if we were planning for its use eventually in
- 6 the United States, we file an application. It's
- 7 called an IND, which is investigational new drug
- 8 application. That goes into the FDA and we tell
- 9 them what we've known from testing so far, what
- 10 our plans are with it. And if they don't object
- 11 to it, then we move to the first human dose of
- 12 the medicine.
- That's an important -- very
- 14 important time because we really need -- we've
- 15 done all the screening through animals that's
- 16 focused mostly on the safety. But before we put
- 17 it into patients or before it goes into many
- 18 people, we start testing the safety. That's
- 19 typically in normal volunteers and the first
- 20 human dose would be a very low dose, it would be
- 21 a single dose.
- You watch what happens and if that
- 23 goes well, you build up to higher doses and you
- 24 give it over a longer period of time,
- 25 scrutinizing very much in particular what safety

- 1 a laboratory setting, more or less test tubes
- 2 using models that look like they may be
- 3 predictive of a therapeutic benefit, models that
- 4 look like they might screen for side effects.
- 5 All of that testing takes place first.
- 6 Q. Then does it move into animals after 7 that?
- 8 A. Right. Actually most of them don't pass
- 9 that first stage of testing but those that look
- 10 like they have enough benefit and enough safety
- 11 to be promising as drugs for people, would next
- be tested in animals, usually starts with mice or
- 13 rats. And if it's successfully passing through
- 14 that, then we move to other animal species.
- Q. And what is the general period of time
- 16 over which these kinds of preclinical studies
- 17 take place?
- 18 A. Well, it varies quite a bit. I'd say
- 19 the minimum is several years. The average is
- 20 probably three or four years.
- 21 Q. And what -- how does testing actually
- 22 then begin in humans after this preclinical phase
- 23 is finished? What does a company need to do at
- 24 that point?
- 25 A. Well, a couple of things. Firstly,

- 1 findings, what laboratory findings might be
- 2 caused by the medicine.
- 3 Q. When you say laboratory findings, would
- 4 that include things like measurements of blood
- 5 sugar levels?
- 6 A. Sure.
- 7 Q. This process that you described with
- 8 healthy individuals participating in clinical
- 9 trials of the drug, is that known as the first
- 10 phase of clinical trials?
- 11 A. Yes.
- 12 Q. And are there two other phases that then
- 13 follow after that?
- 14 A. Right.
- Q. Can you tell the jury -- before a drug
- 16 is approved for market. Can you tell the jury
- 17 what those two phases consist of?
- 18 A. So after this first phase, if it looks
- 19 like people are tolerating it, if our screening
- 20 and that is again promising that it's going to be
- 21 safe enough, then we go to what is called Phase
- 22 2. Phase 2 is where for sure you'd start testing
- 23 it in patients who have the illness that you're24 thinking the drug may be effective for.
- So in that phase what you're

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results.

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A. My experience has been that the FDA has

would have at the pharmaceutical company. So

it would be manufactured and how stable the pill

is. They have experts in toxicology, the animal

They'd have physicians who are

scientists that more or less parallel what we

they will have people that are experts in the drug's chemical formulation and things like how

10 expert in safety. Physicians who are expert in

that you're proposing it for. They have

overall responsibility for deciding about

And for the jury's benefit, can we --

approach the bench, please?

approval and labeling.

the therapeutic area that -- the type of illness

statisticians who are very good at the analysis

and the whole team works together and they give

recommendations to the -- to the director who has

MR. KANTRA: Can we bring up TG021?

MR. SUGGS: Your Honor, I'm going

MR. SUGGS: I sent an e-mail to Mr.

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- 1 testing for is can you get a signal that the
- 2 medicine is going to work. Are you confirming
- 3 your hypothesis or the idea that it's going to
- 4 work? You're looking, can people tolerate it?
- 5 How safe is it for them? Is it safe enough to go
- into wider-scale testing? And you're trying to
- get some sense of what's the right dose that
- you're going to use in your more definitive
- 9 trials.
- 10 And assuming all that works -- many
- 11 medicines don't make it through these stages, but
- 12 assuming that they do, then the next phase is
- 13 Phase 3. That's where you do the big clinical
- 14 trials in order to test the questions that the
- 15 FDA is going to want to look at for the medicine
- 16 coming onto the market. Is there enough evidence
- 17 that the drug works? Is there enough evidence
- 18 that it's safe in order for them to consider
- 19 approving it for use.
- 20 Q. How many patients would typically be in
- 21 one of these large Phase 3 clinical trials?
- 22 A. Well, that varies, but in Phase 2 you
- 23 would might be starting with hundreds of patients
- whereas Phase 3 you're more likely to have 1,000

Q. After the company finishes its studying

approval from FDA, what does it do to obtain that

of various patients with the illness that's the

25 or more.

approval?

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1 Lehner last night telling him I was going to

to object to this. I sent an e-mail -- can we

THE COURT: Sure.

(Bench discussion.)

- object to this. This man is a fact witness. The
- last date shown on here is 1996. He didn't start
- working with the company until 1999. He's got no
- personal knowledge of any of these things.
- 6 A. It's a submission. We refer to it as

subject of the trials and it wants to get

- submission but it's called NDA, new drug
- application. The company has to pull together
- all the information it has from all these phases
- 10 of the trial as well as the company's conclusions
- 11 from that information, and the company's proposal
- 12 for what the drug label might look like, and
- sends that information into the FDA, which then
- starts reviewing it and considering the approval.
- Q. Can you give the jury a sense of when 15
- you say the information is submitted as part of
- the NDA, what's the volume of information that's
- 18 given to the FDA?
- 19 A. It's a lot. When this was in paper
- 20 copies, it's boxes and boxes, and they'd send a
- tractor-trailer to carry it from Lilly to the
- 22 company.
- 23 Q. What is your understanding once an NDA
- goes into the FDA of how FDA goes about reviewing
- the new drug application?

- MR. KANTRA: As you heard through
- 7 his testimony, he's been part of a committee at
- Lilly which oversees the drug development process
- 9 and as will become evident in his testimony later
- 10 as part of his responsibilities he went back and
- 11
- understood the filings and the development over
- 12 time, and he's prepared to testify about that.
 - THE COURT: Subject to you tying up
- 14 that he went back and reviewed the filings over
- 15 time and that he would then be familiarized
- himself with this document, I'll allow the
- 17 testimony.
 - MR. KANTRA: Thank you, Your Honor.
- 19 (End of bench discussion.)
- 20 (BY MR. KANTRA) Dr. Baker, just one
- 21 question before we go and look at this particular 22 slide.
- 23 In your role, when you joined Lilly
- 24 and in your time at Lilly, have you been privy to
- 25 and do you understand the milestones that we've

- 1 just described generally as they pertain
- 2 specifically to olanzapine?
- 3 A. Yes.
- 4 Q. Okay.
- 5 MR. KANTRA: With that, I would 6 bring up TG021.
- 7 Q. (BY MR. KANTRA) And if we go all the
- 8 way to the left-hand side of that screen, can
- 9 you -- can you tell the jury when olanzapine was
- 10 first synthesized --
- 11 THE COURT: Again, you've used -- I
- 12 just want to be clear, you used TG021 --
- MR. KANTRA: Sorry, Your Honor.
- 14 That's just an internal reference for our
- 15 purposes. It's a slide that Dr. Baker helped to
- 16 prepare.
- 17 THE COURT: So this isn't going to
- 18 be offered as an exhibit?
- 19 MR. KANTRA: No.
- 20 A. Your question was when olanzapine was
- 21 first synthesized. More than 25 years ago, 1982.
- 22 Q. (BY MR. KANTRA) If we follow the
- 23 timeline, the phase, what period of time were
- 24 those animal studies and other preclinical
- 25 studies conducted?

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- A. About four years.
- 2 Q. And then when would Lilly have sought
- 3 permission from FDA to begin testing in humans in
- 4 clinical trials?
- 5 A. 1986.
- 6 Q. Over what period of time did Lilly
- 7 conduct clinical trials of Zyprexa before seeking
- 8 approval from FDA?
- 9 A. Nine years.
- 10 Q. And in how many thousands of patients
- 11 did Lilly conduct these trials on before
- 12 submitting it to FDA?
- 13 A. It was a little over 3,000 people.
- 14 Q. And at what point did Lilly make this
- 15 new drug application, this NDA submission that
- 16 you've described?
- 17 A. Well, as you see above 1995 on the
- 18 slide, it was September of 1995.
- 19 Q. And that submission to FDA in September
- 20 of 1995 would have included the clinical trial
- 21 data including things like blood sugar levels
- 22 from patients who participated in those trials?
- A. Sure. Just like I mentioned in general,
- 24 all that information was sent in.
- Q. And how long did FDA review the new drug

- 1 application before approving it?
 - A. They spent about a year reviewing it.
- 3 Q. And then approval came in September of 4 1996?
- 5 A. Right.
- 6 MR. KANTRA: Can we bring up
- 7 AK8905?
 - MR. SUGGS: A copy for me, Counsel?
- 9 MR. KANTRA: That's your exhibit.
- 10 We can get it if you want.
- MR. SUGGS: I still need a copy of
- 12 it.

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- MR. KANTRA: That's perfectly fine.
- Nick, we're going to focus down on
- 15 that bottom part of the screen there.
- 16 Q. (BY MR. KANTRA) Dr. Baker, if you take
- 17 a look at this e-mail here, first thing you
- 18 notice that the date on this is August 31st of
- 19 2000; is that right?
- 20 A. Yes.
- 21 Q. At about the time that you began to
- 22 focus on diabetes-related issues and Zyprexa?
- 23 A. Exactly.
- Q. And you are one of the people -- in
- 25 fact, I think you're the first person to whom

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- 1 this e-mail is addressed; is that right?
- 2 A. Yes.
- 3 Q. Let's look down at the bottom of this
- 4 e-mail where it presents what's called a proposed
- 5 plan. And, in particular, if you'd look at the
- 6 second line of that, it talks about what I refer
- second fine of that, it talks about what i
- 7 to as glucose issues.
- 8 You see that?
- 9 A. I do.
- 10 Q. And, in particular, it says Baker No. 1
- 11 after that, right?
- 12 A. Yes.
- Q. Okay. Does that mean that you were the
- 14 only physician at Lilly who was examining issues
- 15 relating to diabetes and Zyprexa?
- 16 A. No, not at all.
- 17 Q. So, who else at Lilly from a physician
- perspective would have been examining that issue
- 19 as of 2000?

- A. Well, firstly, these folks in these
- 21 e-mails were the other psychiatrists. There were
- 22 four of us working for Lilly in the U.S. doing
- 23 the job that I had mentioned earlier.
- 24 Understanding about our product, communicating
- 25 with physicians in the U.S. All of us had the

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1 job of understanding the side effects, the adverse event profile, the safety profile of the 3 drug, generally.

But then I became the one that was most focused on getting all the details and helping to educate and talk about that with my colleagues in the U.S. There would have been other physicians playing that same role working for Lilly in the other countries where the 10 medicine was on the market in order to help answer questions for their doctors. 11

12 And the way that I did my role 13 principally was talking to all the many physicians and scientists in the company who were 15 working on the safety of Zyprexa. So, in the 16 core group, what we called the product team, 17 there were psychiatrists. There was an 18 endocrinologist, safety physicians who were 19 focused on the safety of Zyprexa. There was a 20 pharmacovigilance department that would look at 21 adverse events, things that we heard from doctors 22 or patients and record those for Zyprexa. There 23 were other endocrinologists, a number of 24 endocrinologists in the company that were helping 25 look at this particular question related to

submissions that Lilly would have made to the FDA

that would have focused on glucose and weight

3 gain?

A. Yes. Sure. That would have been part

of -- information on that would have been part of

the initial submission that came before the

7 approval and other submissions that had been made

after that, but there was also a submission that

was focused just on this topic of glucose that

10 had taken place in July of 2000. In fact, it

was -- reading through that was one of the first

things that I did when I took on my

13 responsibilities in August.

14 Q. In addition to the NDA application and

15 this reading of this special submission that

16 you've just described, would there have been

information in individual study reports about

18 clinical trials that the company was conducting

19 that would have been submitted to FDA?

20 A. Yes. As we finish each of our clinical

21 patient research trials, we submit that

22 information, a study report to the FDA. So that

23 would have come with each trial over time.

24 Q. And as part of those individual study

clinical reports would there have been

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And then in addition to that, there

were all the scientists and physicians who had

worked on the development that we had talked

about previously up to that point.

Q. When you talk about the psychiatrists on the product team that you would have been interacting with, would that have included Dr.

Cavazzoni and Beasley? 9

10 A. Yes.

glucose.

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11 Q. Before your work --

MR. KANTRA: Go ahead and take that

13 down.

12

14 Q. (BY MR. KANTRA) Before you focused your

efforts on the diabetes issues, had Lilly

evaluated the issue of weight and diabetes before

17 August of 2000?

18 A. Yes.

19 Q. And can you tell the jury some of the

kinds of things that would have included that

kind of information that would have been

22 submitted to FDA?

23 A. I'm sorry. Could you clarify the

24 question?

25 Q. Sure. Before August of 2000, were there 1 information about blood sugar levels in those as

2 well?

3 There's a review of all the safety and

laboratory findings, so that would include the

blood sugar results, yes.

6 O. During this trial, we've heard reference

to the fact that the FDA was engaged in -- in

ongoing analysis beginning in 2000 of weight gain

9 and hyperglycemia as it related to atypical

10 antipsychotics like Zyprexa.

11 Are you familiar with that?

12 A. Yes.

13 Q. Okay. When did Lilly first become aware

14 of FDA's interest in this area?

15 A. FDA had communicated that to us in May

16 of 2000.

17 MR. KANTRA: Can we bring up what's

18 been marked as EL2581?

19 (BY MR. KANTRA) I want to direct your

attention to the top of this letter and ask you

21 what the date is there in the upper right-hand

22 corner?

23 A. May 1st, 2000.

24 Q. Do you recognize this letter?

25 Yes.

Q. And it's the letter in which FDA 1 2 requests that the manufacturers of atypical antipsychotics provide comprehensive information on hyperglycemia to the FDA; is that right? 5 A. Yes.

6 MR. KANTRA: Nick, if we could go 7 down to look at the paragraph that begins with "to assist." 8

9 Q. (BY MR. KANTRA) And that sentence there 10 says: To assist us in fully evaluating the 11 possibility that atypical antipsychotics may 12 produce disturbances in glucose metabolism, we

provide us with more extensive safety

15 information.

16 How did Lilly understand this 17 request from FDA in terms of what they were seeking? 18

13 are requesting that the sponsors of these agents

19 MR. SUGGS: Objection, Your Honor. 20 Lack of foundation as to what Lilly understood.

21 THE COURT: Can you repeat the

22 question again?

23 MR. KANTRA: Yes, I said: In

24 response to this request from FDA, what was

Lilly's understanding of the request that was

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being made of the company. 2 THE COURT: I'll overrule the

3 objection.

4 MR. KANTRA: Thank you.

5 THE WITNESS: We understood that

they were asking us to help them to assist them

as they were evaluating this question about hyperglycemia and diabetes and to assist them

9 through providing information about it.

10 Q. (BY MR. KANTRA) And was this request 11 directed only at Lilly?

A. My understanding is that it went to all 13 the manufacturers of atypical antipsychotics, so

14 that would have included the manufacturers of

15 Clozaril and -- clozapine, risperidone,

quetiapine, as well as olanzapine.

17 Q. Did Lilly ultimately respond --

MR. KANTRA: Go ahead and take that 18 19

Q. (BY MR. KANTRA) Did Lilly ultimately 20

21 respond to this request from FDA?

22 A. Yes. We provided a number of 23 submissions in response to this request.

24 When did it first respond to FDA's

25 request?

1 The first was the July, 2000 submission

2 that I mentioned a couple of minutes ago.

3 MR. KANTRA: Can we bring up 4 EL2043?

5 THE WITNESS: Sorry.

6 MR. KANTRA: May I approach? 7

THE COURT: You may. And

8 Mr. Kantra, feel free to move around the

9 courtroom as you need to.

10 Q. (BY MR. KANTRA) Dr. Baker, I put this

11 before you. Ask you to take a look at the first

12 volume in particular. Tell me whether you

recognize this. 13 14

16

THE COURT: Before we get into

15 this, is this a good spot for a break?

MR. KANTRA: That would be great.

17 THE COURT: Ladies and gentlemen of 18 the jury, we'll take our second break of the day,

19 and we'll try to keep it to 15 minutes.

20 (Jury out.)

21 THE COURT: We'll be off record.

22 (Break.) 23 (Jury in.)

THE COURT: Please be seated. 24

25 We're back on the record and all

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members of the jury are present.

2 Mr. Kantra.

3 MR. KANTRA: Thank you.

4 (BY MR. KANTRA) Dr. Baker, I think we

had left off, I had shown you what has previously

6 been marked as EL2043?

7 Yes. Α.

8 O. And do you recognize that document?

A.

10 Q. And is that Lilly's July, 2000 response

11 to FDA's request in May for information on

12 Zyprexa and hyperglycemia?

13 A. It is.

14 MR. KANTRA: If you could bring

15 up --

9

16 Q. (BY MR. KANTRA) Actually before we do

17 that, let me ask you, Dr. Baker: Did you help

prepare slides that would help the jury

19 understand the submissions that Lilly made in

20 response to the May, 2000 letter?

21 A. Yes.

22 MR. KANTRA: Okay. Can we bring up

23 TG104? 5?

24 Q. (BY MR. KANTRA) And if we look up on

25 this slide here, does this reflect a summary of

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- 1 the information that was included in the response to the May, 2000 letter?
- 3 A. It does.
- 4 Q. Okay. And if we begin up at the top with respect to the literature that was sent in to FDA, about how many pieces of -- how many articles were sent to the FDA?
- 8 A. It was over 100. Lilly had reviewed the 9 literature going back -- well, going back for 10 decades looking for information about glucose 11 abnormalities during treatment with antipsychotic 12 medicines or associated with schizophrenia.
- 13 Q. And I see in the second bullet point up there, it refers to historical animal study data 15 and clinical studies?
- 16 A. Yes. We've reviewed for the FDA the 17 information that had come during the course of 18 the drug's development that we had talked about 19 earlier through the animal studies, Phase 1, 2, 20 and 3, as well as studies that had been completed 21 after the drug had been approved.
- 22 Q. And that next to last bullet point up 23 there refers to a new analysis of clinical trial 24 data; is that right?
- 25 A. Yes.

studies, but comes in because a doctor

- 2 communicates to us, say, through a sales rep or a
- 3 pharmacist or a patient if they called our 800
- number and said, hey, I'm having this discomfort.
- 5 We take that information and it's
- called a spontaneous adverse report, and we have
- 7 to clarify the information and that's all
- 8 reported -- we analyze it ourselves, but we
- 9 report it also to the FDA.
- 10 Q. Did this submission also include copies of submissions that had been made to regulatory 11 authorities outside the United States?
 - It summarized those.
- 14 Would that have included information
- 15 regarding a change to the European label
 - regarding diabetes in 1999?
- 17 A. Yes.

13

- 18 O. You mentioned -- turning back to that
- 19 new analysis of clinical trial data, can you tell
- 20 us what the two primary conclusions were from
- 21 that analysis?
- 22 A. Yes. Two -- two important conclusions.
- 23 One was that in looking at -- again, this was an
- analysis that was looking for the proportion of
- patients that developed hyperglycemia or

- Q. And, roughly, there was a number at the end of that bullet point. What does that represent?
- A. 6,374 people were in this analysis. So this made it a very important analysis. This was
- the biggest data set that was existing at that
- time looking at antipsychotic medicine, and this
- was a review that was done pulling all that
- together to look specifically at the blood
- 10 glucose measures that had been drawn during the
- 11 study in order to answer the question of how many
- 12 people were having elevations from the beginning
- of the study to sometime in the course of the
- 14 study that would suggest -- that might suggest 15 that they were having hyperglycemia or diabetes.
- 16 Q. And then the last bullet point up there 17 refers to a review of spontaneous adverse event
- 18 reports after 4 million patient exposures.
- 19 Can you remind the jury what 20
- report that happens in a clinical trial. This is 25 information that we get that is not from our
- spontaneous adverse event reports are? 21 A. Yes. That's an important part of what 22 we do in the safety division that I'm in, which 23 is that spontaneous report is different than a

- diabetes, presumed hyperglycemia or diabetes
- based on blood sugar changes in the course of
- their treatment. And we looked at olanzapine
- versus the other comparisons that were in this database. Placebo, risperidone, haloperidol.
- 6 What we found is that there was no
- difference in the rate of crossing those thresholds between olanzapine and the other
- 9 treatments. That was one finding.
- 10 But the other important finding is 11 that then they looked back taking all those
- patients who had crossed the thresholds and
- 13 looked at the question of, hey, we know in the
- general population that there's some things that 15 would make you more at risk of hyperglycemia,
- like older age or if you're obese when you come
- in, and we looked for did those sorts of risk 17
- 18 factors hold up to indicate who's likely to have
- 19 those blood sugar increases in the course of
- treatment. And indeed, not surprisingly, that's 21 what we found.
- 22 Q. Did Lilly reach any conclusions as to
- 23 whether labeling changes were made based on this 24 July, 2000 submission?
- 25 A. Yes. Lilly looked at that question and

- 1 stated to the FDA that they felt that no labeling change was needed to what was already in the
- 3 label at that time.
- Q. And moving on to the -- the second
- submission that Lilly made in regards to FDA's
- response, I want to direct your attention to May
- of 2001 and ask you if that was the date or the
- month in which Lilly made another submission to 9 FDA.
- 10 A. Sorry, could you repeat that?
- Q. Sure. The second submission that Lilly 11
- made in response to the FDA's request was in May
- of 2001; is that right?
- A. Yes. 14
- 15 MR. KANTRA: Can we bring up
- 16 EL2127?
- 17 Q. (BY MR. KANTRA) Are you familiar with
- 18 this submission. Dr. Baker?
- 19 A. Yes.
- 20 MR. KANTRA: And can we bring up,
- 21 Nick, TG1071?
- 22 Q. (BY MR. KANTRA) And, Dr. Baker, using
- 23 these slides that you've helped to prepare, can
- you describe for the jury the information that
- was contained in this submission to FDA?
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 - A. Yes. This included new information that
 - 2 we had since the submission the year before. And
- so on this slide what's mentioned is it included
- the first two epidemiology studies that Lilly had
- done looking at this question about diabetes
- occurring in people taking antipsychotic
- 7 medication.
- 8 O. And let's take -- let's take the studies
- 9 one at a time.
- 10 With respect to the first study,
- 11 the GPRD study, what were the findings with
- 12 respect to whether or not the risk of diabetes
- 13 was increased over the general population?
- 14 A. This study was done in the United
- Kingdom, and it confirmed that people on 15
- antipsychotic medicine had occurrence of more
- diabetes during their treatment than people that
- weren't on antipsychotic medicine. This is
- comparing the antipsychotics to people that
- 20 weren't taking antipsychotics.
- 21 Was that a surprising finding to you?
- 22 A. No. This, again, confirms something
- 23 that we had seen pretty strongly in the
- literature review that was sent to the FDA the 24
- year before, which is that people with

- 1 schizophrenia, for whatever reasons, are having
- higher rates of diabetes, significantly higher
- 3 than people who didn't have schizophrenia.
- Q. And was there a comparison that looked
- at the question of whether there was more
- diabetes observed in patients who were treated
- 7 with atypical antipsychotics than the
- 8 first-generation agents?
- 9 That's right. In this case it looks
- 10 significantly more common on atypical
- antipsychotics than on the older typical, or
- 12 first-generation, as you've called them.
- 13 Q. Was there enough information in that
- 14 study to be able to make an assessment of the
- 15 risk with respect to Zyprexa?
- 16 A. No. At that time Zyprexa was relatively
- 17 newly available in the U.K. So about 75 percent
- of those patients were on risperidone and not
- 19 olanzapine. There wasn't enough of a judgment to
- 20 make a comparison of how it stacked up to other
- 21 treatments.
- 22 Q. Let's look to the other study that Lilly
- 23 submitted in May, and that's the AdvancePCS
- study. That study found that there was an
- increased risk as compared to the general
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- population?
- 2 Yeah, that's been consistent and it was
- consistent again here.
- And with respect to atypicals against
- the first-generation agents, this study found in
- contrast to the first study that there was no
- 7
- significant difference, is that right?
- 8 A. That's right.
- 9 Q. What about the comparison that looked at
- Zyprexa in this study against another atypical
- 11 antipsychotic, risperidone?
- 12 Yes. This one was much bigger study
- 13 than the U.K. study. This is a U.S. study, and
- 14 the two atypical antipsychotics that were mostly
- 15 in this one were olanzapine and risperidone. So
- 16 we could make that comparison and we found that
- 17 the rates of diabetes as measured in this study
- 18 were no different between those two drugs.
- 19 Q. And were these published?
 - Yes.
- 21 MR. KANTRA: Could we have EL2013
- 22 and EL3385?
- 23 Q. (BY MR. KANTRA) Let's look first at
- 24 EL2013.

Are you familiar with that article? 25

- 1 A. Yes.
- 2 O. Okay. And does that represent the GPRD
- analysis that -- that Lilly did that you've just
- described?
- 5 A. That's right.
- 6 MR. KANTRA: Okay. And can we
- bring up -- yeah, bring up EL3385. Can we pull
- that up just a little bit?
- 9 Q. (BY MR. KANTRA) And does that show the
- 10 AdvancePCS study that Lilly conducted and that
- 11 you've described as well?
- 12 A. Yes.
- 13 Q. And these articles appeared and were
- published in peer-reviewed journals; is that
- correct? 15
- A. Yes. 16
- 17 MR. KANTRA: Nick, if we could go
- 18 back a minute, or not go back, but can we go to
- 19 TG1072?
- 20 Q. (BY MR. KANTRA) And in addition to
- 21 these two epidemiology studies that you've just
- 22 described, did Lilly also take a look -- another
- 23 look at the clinical trial data regarding
- 24 hyperglycemia and diabetes and Zyprexa?
- A. Yes. That's what's referred here as the

- 1 A. Exactly.
- 2 Q. Okay. What was the other way they
- 3 looked at it?
- 4 The other way we looked at it was
- 5 looking at all patients. What's the average
- change that they had from before they start on
- 7 the treatment to when they finish treatment. So
- then you subtract the glucose at the end from
- 9 what it is at the beginning, that's what you do
- 10 for each individual, and you average it so it
- 11 looks across everybody.
- Q. Does this second analysis, the average
- 13 change analysis that you just described, tell you
- 14 whether patients developed diabetes or not?
- 15 A. No, that just tells you the average
- 16 change across the whole population. It can't
- tell you for what percentage of people was that
- an abnormal change or one significant for disease
- 19 versus what percentage is not an important
- 20 change.
- 21 Q. Let's start with that second analysis
- 22 that you've just described and look at the
- 23 average changes.
- 24 What did that show?
- 25 Well, it showed that in olanzapine there

- 1 Allison clinical trial analysis. Dr. David
- Allison, who was somebody outside of Lilly
- working with us on -- on this question, helped
- 4 Lilly in this analysis.
- Q. And the study looked at glucose
- 6 elevations in two different ways in this study;
- is that right?
- 8 That's right.
- 9 Q. And those two different ways -- can you
- 10 describe the two different ways that the company
- 11 did that?
- 12 A. Yes. I had mentioned in the last
- analysis, the submission of the year before, that
- 14 what Lilly had looked at was comparing blood
- 15 glucoses when the patient started treatment to
- 16 what happened in the course of treatment to do --
- we called a categorical analysis, to see what
- percentage of patients go above a certain level.
- 19 This one repeated an analysis of that and looked
- 20 at more different categories. Looked at it more
- 21 ways.
- 22 Q. Can I stop you there.
- 23 When you say categories, categories
- 24 that would be indicative of hyperglycemia or
- 25 diabetes?

- 1 did tend to be increase from the time people
- started treatment to the time they finished
- 3 treatment on average. It tended to go up some.
- Also, what we were doing that is comparing that
- to what we found on other treatment groups, to
- 6 placebo, to haloperidol, to risperidone, to
- 7 clozapine.
- 8 In one case there wasn't a
- 9 difference between those, that was risperidone,
- 10 the other atypical antipsychotic. The change
- 11 from beginning to end was not different on
- 12 average between olanzapine and risperidone. But
- compared to placebo or compared to haloperidol,
- 14 there was a greater increase in the average
- 15 glucose in patients on olanzapine compared to
- those other treatments. And compared to
- 17 clozapine, there was significantly less increase
- 18 than had been seen with clozapine.
- 19 Q. Why don't we turn then to the other
- 20 analysis that you described that looked at
- 21 potential cases of hyperglycemia or diabetes and
- 22 can you tell us what were the findings in that
- 23 analysis or that part of the analysis.
- 24 Yeah. Here's again one that looks at
- 25 the rate of whether individual patients having an

- 1 increase varies from one treatment to another.
- 2 This confirmed the previous analysis that there
- 3 was no difference at any of the comparisons at
- 4 any of the thresholds.
- 5 Q. Did Dr. Allison prepare a manuscript
- 6 reporting the results of this study?
- 7 A. Yes.
- 8 MR. KANTRA: And if we can go back
- 9 to EL2127, I believe -- yeah. And can you go to
- 10 the last document there, which is going to be Tab
- 11 3?
- 12 Q. (BY MR. KANTRA) And Dr. Allison
- 13 prepared a manuscript that was ultimately
- 14 submitted for publication; is that right?
- 15 A. Yes. It was submitted.
- MR. KANTRA: And go one more in,
- 17 Nick, if you could. And can you blow up the
- 18 title and the authors?
- 19 Q. (BY MR. KANTRA) Does that represent the
- 20 manuscript that was prepared by Dr. Allison?
- 21 A. Yes.
- 22 Q. Why don't we turn to the third
- 23 submission that Lilly made, and that was in
- 24 October of 2002; is that right?
- 25 A. Yes.

- 1 Q. Okay.
- 2 MR. KANTRA: Can we bring up
- 3 EL2032?
- 4 THE COURT: Did you say 2302?
- 5 MR. KANTRA: Sorry. 2032.
- 6 THE COURT: 2032.
- 7 Q. (BY MR. KANTRA) Do you recognize this
- 8 submission?
- 9 A. I do.
- 10 Q. And was this actually the third
- 11 submission that Lilly made to FDA?
- 12 A. Yes. This was the third.
- 13 Q. And what was -- what was the new
- 14 information that Lilly was sharing with FDA in
- 15 this particular submission?
- 16 A. There were a number of things. I
- 17 prepared -- helped prepare a slide on that.
- MR. KANTRA: Why don't we bring up
- 19 TG1073.
- Q. (BY MR. KANTRA) Up at the top there's a
- 21 reference to literature studies; is that right?
- 22 A. Yes.
- Q. And what did the company's survey of the
- 24 literature show?
- 25 A. We reviewed and provided the things that

- 1 were new since our 2000 submission, and among
- 2 those were a number of published
- 3 pharmacoepidemiology studies. They were
- 4 consistent on some points, but some variation
- 5 from one to another in terms of whether they find
- 6 differences from one treatment to another. That
- 7 was inconsistent.
- 8 Q. And then there was -- there was a study
- 9 which is identified on the slide as a TED
- 10 clinical trial analysis.
 - What does TED stand for?
- 12 A. TED is an acronym, treatment-emergent
- 13 diabetes, TED.

11

- 14 Q. And what did this study evaluate?
- 15 A. This, I think, was one of the most
- 16 useful analyses that was done on Lilly's clinical
- 17 trial, at least useful from the standpoint of
- 18 helping clinicians. Because this one, again,
- 19 looked at some of the questions that we had
- 20 looked at in the past such as comparisons of
- 21 apparent diabetes occurring during treatment on
- 22 one drug versus another.
 - But this went beyond that to really
- 24 emphasize who is most likely to get that diabetes
- 25 happening in the course of treatment to help
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 - 1 doctors with giving them some notion among all
 - 2 these patients you have with schizophrenia, who
 - 3 are the ones that would be most at risk.
 - O. This was an analysis that was in
 - 5 approximately 5,000 patients; is that right?
 - 6 A. Right. Again, this was really the
 - 7 largest data set that was available at that time.
- 8 Q. And more than 20 clinical trials?
- 9 A. Yes.
- 10 Q. And what did this study tell us, then,
- 11 in terms of what risk factors were most
- 12 significantly associated with the development of
- 13 treatment-emergent diabetes?
- 14 A. Well, this one confirmed what we had
- 15 seen before, that which treatment was chosen was
- 16 not a predictor. It wasn't a risk factor for the
- 17 likelihood of having diabetes in the course of
- 18 treatment. This one --
- 19 Q. When you say treatment, that would be
- 20 whether a patient was assigned to Zyprexa or
- 21 another drug?
- 22 A. That's right.
- 23 Q. Okay.
- A. Or Zyprexa versus placebo as well.
- 25 O. Okav.

- 1 A. But this one also, as I mentioned,
- 2 looked at risk factors and among those, the most
- 3 powerful was the blood glucose measurement before
- 4 the person gets the medicine. In fact, what this
- 5 found is that people who had borderline, somewhat
- 6 elevation of their glucose when they started, not
- 7 at a diabetes level, but elevated had more than
- 8 ten times as much likelihood, more than ten times
- 9 of getting diabetes during their treatment than
- 10 if their blood glucose had been normal before
- 11 they went onto the treatment.
- 12 Q. And was there any other factor that was
- 13 also among the most significant risk factors for
- 14 predicting diabetes?
- 15 A. Well, yes, we looked -- we looked beyond
- 16 that -- that was a known risk factor. We looked
- 17 the things that the ADA or general knowledge on
- 18 diabetes would have told you are risk factors,
- 19 like if a person is older or has hypertension or
- 20 if they're obese. And if you look at those,
- 21 they, again, hold up on this analysis.
- And if a person has two or more of
- 23 those risk factors versus somebody that has one
- 24 or less, if you have two or more versus one or
- 25 less, you're more than five times as likely to

- 1 Q. And this is titled A Retrospective
- 2 Analysis of Risk Factors in Patients with
- 3 Treatment-emergent Diabetes During Clinical
- 4 Trials of Antipsychotic Medications and that's
- 5 published in the British Journal of Psychiatry?
- 6 A. Yes.

- Q. And that was in 2004 when that was
- 8 published?
- 9 A. I'm thinking it's 2005.
- 10 Q. Okay.
- MR. KANTRA: Let's look at TG1074
- 12 if we can for a minute.
- 13 Q. (BY MR. KANTRA) We heard Dr. Inzucchi
- 14 testify earlier about some mechanistic clamp
- 15 studies that found no direct effects on either
- 16 the pancreas or on insulin resistance, and I
- 17 wanted to ask you if you're familiar with those
- 18 studies.
- 19 A. Yes.
- 20 Q. And were those studies disclosed to FDA
- 21 in October of 2002?
- A. Yes. Lilly had conducted two of them,
- 23 and the results were in this 2002 submission.
- Q. And those were also published in a
- 25 peer-reviewed literature as well?

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- 1 get diabetes in the course of treatment. So this
- 2 was important information for doctors.
- 3 Q. And was there an analysis of the extent
- 4 to which weight gain was a risk factor for
- 5 diabetes?
- 6 A. That's right. And it also found that if
- you had weight gain in the course of treatment,
- 8 that that was a risk factor for being more likely
- 9 to have diabetes in the course of treatment than
- 10 you didn't have weight gain. A much, much weaker
- 11 risk factor than the others we described, but it
- 12 was a significant -- it was a significant risk
- 13 factor.
- 14 Q. In addition to sharing this information
- 15 with the FDA in October of 2002, was the
- 16 information from this TED study that you've just
- 17 described published in the peer-reviewed
- 18 literature?
- 19 A. It was.
- MR. KANTRA: Can we bring up
- 21 EL3801?
- 22 Q. (BY MR. KANTRA) Dr. Baker, do you
- 23 recognize this article?
- A. Yes. This is the TED study,
- 25 treatment-emergent diabetes.

- 1 A. Right.
- 2 Q. The next --
- 3 MR. KANTRA: We're okay with that
- 4 now, Nick, you can take that down.
- 5 Q. (BY MR. KANTRA) The next submission,
- 6 the fourth submission that Lilly made to FDA
- 7 regarding whether or not there were -- the
- 8 important information with regard to Zyprexa and
- 9 diabetes was in March, 2003; is that right?
- 10 A. Yes.
- MR. KANTRA: Can we bring up
- 12 TG1075 -- actually before -- before we do that,
- 13 can we bring up EL2033?
- 14 Q. (BY MR. KANTRA) And does this -- let me
- 15 give you this analysis as well.
- Do you recognize this submission?
- 17 A. I do
- 18 O. And this is the submission that went
- 19 into FDA in March of 2003?
- 20 A. Yes.
- 21 Q. This was --
- MR. KANTRA: If we can bring up
- 23 TG1075.
- Q. (BY MR. KANTRA) And this reflected
- 25 Lilly's analysis of spontaneous adverse event

7

8

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- 1 reports after more than 9 million patient
- exposures; is that right?
- A. Right. 3
- 4 Q. And it looked at spontaneous adverse event reports, and what did it conclude?
- A. It reviewed -- Lilly reviewed these and
- found that there was no conclusion that could be
- drawn from these data regarding causation of 9 diabetes.
- 10 Q. From these spontaneous adverse event 11 reports?
- 12 A. From these, yes, sir.
- 13 Q. Let me go to a submission that Lilly
- made three months later in June of 2003. That
- 15 would be the fifth submission that was made in
- 16 this instance.
- 17 MR. KANTRA: And can we bring up EL2036? 18
- 19 Q. (BY MR. KANTRA) And do you recognize
- 20 this submission?
- 21 A. Yes.
- 22 Q. Okay. This is the June submission to
- 23 FDA and further response to its request in 2000?
- 24 A. That's right.
- 25 MR. KANTRA: Let's bring up TG1076.

5 Q. There's a second study that's described

up there as the PED study.

important risk.

What did that represent?

treatment. If that was high, that was an

Yes, PED is preexisting diabetes. So

And again, by far the most powerful

predictor was the blood sugar before they started

- 9 this was looking at patients who had already
- diabetes when they started treatment. We
- wouldn't have looked at those in the other
- 12 studies of treatment-emergent diabetes. So this
- trial went back to those patients and looked at
- 14 what happened to them when they got medicine.
- 15 Q. And looked at the question of whether
- 16 their diabetes got worse over time? Is that
- 17 right?
- 18 A. Exactly.
- 19 O. And what did they find -- what did Lilly
- 20 find in regard to this study?
- 21 Well, a couple things. One, as you'd
- expect in diabetes, that it's different from
- 23 patient to patient. Some people are worsening;
- 24 some are getting better in the course of
- treatment. But on average across all the

- Q. (BY MR. KANTRA) And this information included, again, more new clinical trial analyses that Lilly had conducted.
- Can you describe these analyses for 5 the jury?
- 6 A. Yes. Since the previous submission
- 7 Lilly had completed two new analyses. The first
- one on the list is -- it's like the previous
- treatment-emergent diabetes submission, but
- 10 whereas that one was looking at clinical trials
- 11 for patients with schizophrenia, this was taking
- 12 the same analyses in patient who had bipolar
- 13 disorder.
- 14 Q. And what did it find in terms of whether 15 or not the same risk factors were most predictive
- 16 of developing diabetes?
- 17 A. This one was very consistent with the
- other one. It did not find that whether they
- 19 were on olanzapine or the alternative treatment,
- 20 placebo or other treatments for mania, it did not
- 21 find any difference in likelihood of developing
- 22 diabetes based on that. But, again, this held up
- 23 that the nonrisk factors that they may have at
- 24 baseline such as obesity, such as advanced age,
- 25 were risk factors.

- treatments, there's a little bit of worsening over time.
- 2 3
- And then the other thing it found 4 was, again, the comparison, is this different if
- you're on olanzapine than other treatments. In
- this case it was haloperidol was the one that we
- had the most patients to compare to and found no
- 8 significant difference in that worsening.
- 9 There's a third clinical trial report
- that was included in this analysis as well, which
- is described by the study code HGHJ. And that 11
- 12 compared Zyprexa against ziprasidone, right?
- 13 A. Right.
- 14 Q. Ziprasidone is Geodon?
- 15 A. Right.
- 16 That was one of the newer atypical
- 17 antipsychotics?
- 18 Right. This was a brand-new study.
- 19 This was a six-month-long study of treatment in
- schizophrenia and it compared olanzapine to the
- newest drug, ziprasidone, which appeared to have
- less weight gain effect than olanzapine or for
- 23 that matter the others that were available at the
- 24 time.
- 25 Q. And what did this study find with

- 1 respect to changes in blood sugar levels?
- A. It found no difference in terms of
- average blood sugar from beginning to the end of
- the study. No difference between olanzapine and
- ziprasidone. And it also, again, looked at the
- question not of the average, but individual
- patients. Are there more on olanzapine than
- ziprasidone that got diabetes or hyperglycemia in
- the course of treatment? Well, first time with
- 10 ziprasidone, but, again, the finding was no
- 11 difference.
- 12 Q. And was that despite a significant
- 13 difference in weight gain?
- 14 A. Yes. There was considerably more weight
- 15 gain on average with olanzapine than there was
- with ziprasidone.
- 17 Q. Was there also as well in this
- 18 particular submission additional literature that
- the company had become aware of with respect to
- 20 Zyprexa and hyperglycemia?
- 21 A. I believe this one reviewed the
- 22 literature again.
- 23 Q. Finally, let's talk about the most
- 24 recent special submission that focused just on
- glucose that went into the FDA.

- 1 glucose submissions that focused exclusively just
- on the issue of whether or not there were
- differences in regards to changes in blood sugar
- elevations or differences in regards to diabetes
- and hyperglycemia. Would these have been the
- only documents that would have been submitted to
- 7 FDA that looked at blood sugar levels,
- hyperglycemia, and diabetes?
- 9 A. No. These were the only submissions
- 10 that -- during that time period that focused just
- on that question, but there were many other
- submissions in which that question would have
 - been addressed as part of the submission.
- 14 Q. And can you identify the types of other
- 15 ways in which information on blood sugar
- 16 elevations would have been provided to FDA?
- 17 Yes. For all of our products there's --
- 18 there are periodic reports of new safety
- 19 information. That's what our safety group will
- 20 do on a regular basis.
- 21 You supervised the people who actually
- 22 prepare those reports?
- 23 A. I supervise the physicians, yes.
- 24 Q. Okay.
- 25 A. In addition to that, and I think I

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- 1 MR. KANTRA: And if we can take a look at EL2041.
- 3 Q. (BY MR. KANTRA) Dr. Baker, do you
- recognize this as the submission that went into FDA in February of 2006?
- A. Yes.
- 7 And in this particular analysis, was
- there a look at both the clinical trial data and
- 9 the spontaneous adverse event data?
- 10 A. Yes.

- 11 Q. And what was found with respect to
- 12 whether or not the findings in this analysis were
- consistent with the earlier analyses in regard to
- 14 the risk of diabetes whether it was higher on
- 15 Zyprexa or not?
- 16 A. This one was looking at the adverse
- 17 events related to diabetes or hyperglycemia and
- 18 it found looking at the adverse events in
- 19 clinical trials were consistent with what we'd
- seen in clinical trials previously. It looked at
- 21 the spontaneous reports and the conclusion that
- 22 had been called in to Lilly the conclusion with
- 23 those was, again, consistent with what we had
- 24 seen in our earlier reviews.
- 25 Q. Now, we'd been talking about special

- 1 mentioned this before, as we do new clinical
- studies, when those are reported -- completed and
- the analysis is completed, those are submitted as
- a study report to the FDA.
- 5 Q. And what about when -- when Lilly
- actually requests a new indication, it was
- approved originally for schizophrenia, but each
- time the company submits for a new indication, is
- 9 there information relating to glucose for that?
- 10 That's right. Each of those submissions
- is somewhat similar to the first initial new drug
- application submission in that we submit all of
- 13 the clinical data and other information that is
- supporting the new indication, the new treatment
- 15 group that we're requesting in that.
- 16 And so they would include the
- 17 safety information from those studies, it would
- 18 include an overall summary of safety findings
- 19 with the drug, and it would include, again, for
- the FDA to review the Zyprexa label and proposed
- 21 changes to the -- to the label in each of those
- 22 submissions.
- 23 Q. And when you say that they would be
- 24 reviewing the labeling, that would include any
- review of the safety information in the labeling;

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- 1 is that right?
- 2 A. Yes, sir, of course.
- 3 Q. Dr. Baker, are you familiar with the
- 4 labeling and package inserts for Zyprexa,
- 5 generally?
- 6 A. Yes.
- 7 Q. And are you familiar, in particular,
- 8 with the package insert for Zyprexa from 1996
- 9 when the drug was originally approved?
- 10 A. Yes.
- 11 Q. Okay.
- MR. KANTRA: Can we bring up 2954A?
- 13 If you go down to the bottom of
- 14 that first page, Nick.
- 15 Q. (BY MR. KANTRA) See the date down
- 16 there? 1996?
- THE COURT: That's EL2954A?
- 18 MR. KANTRA: Yes.
- 19 Q. (BY MR. KANTRA) Is that the 1996 label
- 20 for Zyprexa?
- 21 A. Yes.
- 22 Q. And moving from the 1996 to April of
- 23 2000, are you familiar with the labeling for
- 24 Zyprexa as it existed in April of 2000?
- 25 A. Yes.

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- 1 Q. Okay.
- 2 MR. KANTRA: Can we look at 2937A?
- 3 And can we go to the last page of that document?
- 4 And if we could look at the part that says
- 5 literature revised.
- 6 Q. (BY MR. KANTRA) And is this the package
- 7 insert that represents the literature as -- the
- 8 package insert as it stood in April of 2000?
- 9 A. Right.
- MR. KANTRA: Take that down.
- 11 Q. (BY MR. KANTRA) I want to ask you if
- 12 you're also familiar with the labeling for
- 13 Zyprexa as it stood in October of 2000.
- 14 A. Yes.
- MR. KANTRA: And can we bring up
- 16 EL2585? And, again, can we go to the last page
- 17 of that document? You see the literature revised
- 18 section there, Nick?
- 19 Q. (BY MR. KANTRA) And does this represent
- 20 the October, 2000 package insert for Zyprexa?
- 21 A. Yes.
- Q. Are you familiar with the labeling for
- 23 Zyprexa as it stood in September of 2003?
- 24 A. Yes.
- MR. KANTRA: And can we bring up

- 1 EL2953? And if we can go to the last page again.
- 2 2953 -- sorry, I misspoke on that.
- 3 Q. (BY MR. KANTRA) Does that represent the
- 4 literature as it stood on that date in September
- 5 of 2003?
- 6 A. Yes.
- 7 Q. Are you familiar with the package insert
- 8 for Zyprexa as it stood in January of 2004?
- 9 A. Yes.

10

13

- MR. KANTRA: Can we bring up 2945A?
- 11 Q. (BY MR. KANTRA) And if we can go to the
- 12 last page, again, for that.
 - It shows a date of January 14th,
- 14 2004. Is that the January, 2004 package insert
- 15 for Zyprexa?
- 16 A. Yes.
- 17 THE COURT: Again, that's an EL
- 18 document?
- MR. KANTRA: Sorry. EL2945A.
- 20 Q. (BY MR. KANTRA) And finally, are you
- 21 familiar with the labeling for Zyprexa as it
- 22 existed in October of 2007?
- 23 A. Yes.
- MR. KANTRA: Can we bring up
- 25 EL2958? Again, if we can go to the last page of

- 1 that at the bottom.
- 2 Q. (BY MR. KANTRA) You see where it says
- 3 Literature Revised?
- 4 A. I do.
- 5 Q. And does that show the labeling as it
- 6 existed as of October of 2007?
- 7 A. Yes.
- 8 Q. All right. I want to take you back for
- 9 a minute to the October, 2002 submission that we
- 10 talked about a moment ago.
- And, in particular, I want to ask
- 12 you if you were aware of a teleconference that
- 13 took place between FDA and Lilly regarding the
- 14 substance of that particular submission?
- 15 A. Yes.
- 16 Q. Is it Lilly's standard practice for its
- 17 regulatory group to document interactions with
- 18 FDA regarding Zyprexa?
- 19 A. Yes, Zyprexa or any of our products that
- 20 we'd document.
- MR. KANTRA: Can we have EL2037?
- 22 Q. (BY MR. KANTRA) You see this is marked
- 23 as a note to file?
- 24 A. Right.
- Q. And is it a note to file that would

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- 1 capture Lilly's understanding of the interaction2 with FDA?
- 3 A. That's the point, yes.
- 4 Q. And does the title of this, the subject
- 5 of the communication reflect October 17, 2002,
- 6 FDA meeting and briefing document?
- 7 A. Yes.
- 8 Q. Okay. And if we go to -- let me just
- 9 ask you: What was your understanding of the
- 10 communication that took place between FDA and
- 11 Lilly regarding the information that was
- 12 submitted to FDA in October of 2002?
- MR. SUGGS: Your Honor, can we
- 14 approach, please?15 THE CO
 - THE COURT: You may.
- 16 (Bench discussion.)
- MR. SUGGS: This witness wasn't
- 18 part of this meeting. I mean, he's not copied on
- 19 this thing. They're just using this to talk
- 20 about these documents. He doesn't have personal
- 21 knowledge if he's talking as a fact witness.
- THE COURT: A curious objection
- 23 coming from the Plaintiff.
- Do you want to set a little bit of
- 25 a foundation?

- 1 could get back to us on the methodology of the VA
- 2 study and the expected timing of the data being
- sent to the division from the VA.
- 4 Can you tell us a little bit more
- 5 about what that VA study was?
- 6 A. Yes. This was an epidemiology study
- 7 that was, again, looking at the risk of diabetes
- 8 in patients with schizophrenia, and looking in
- 9 particular at the question of whether rates would
- 10 be different between antipsychotic agents, and it
- 11 was conducted in the Veterans Administration
- 12 system in the United States.
 - All the VA hospitals and clinics
- 14 looking for patients with schizophrenia and
- 15 exploring this question.
- 16 Q. And does -- does this refresh that the
- 17 FDA was actually involved in helping to design
- 18 that study?

13

23

- 19 A. Lilly's understanding was that, yes,
- 20 they were in contact with -- close discussion
- with the investigators about this study
- 22 throughout.
 - Q. Do you recall when the results from that
- 24 study were first presented to the public?
- 25 A. It was around the end of summer of that

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- 1030 17
- MR. KANTRA: This is going in as a
- 2 business record is the foundation that I'm
- 3 setting up for this.
- 4 THE COURT: Okay. I'll allow this.
- 5 You could cross-examine.
 - (End of bench discussion.)
- 7 Q. (BY MR. KANTRA) Let's take a look at
- 8 the third paragraph on this, Nick.
 - And in particular, you see the
- 10 first sentence there that says that Dr. Katz
- 11 noted that the division was not in a position at
- 12 this time to draw conclusions regarding glucose
- 13 dysregulation?
- 14 A. Yes.

6

9

- 15 Q. And is that consistent with your
- 16 understanding of the communication that was made
- 17 between Lilly and FDA as of October of 2002?
- 18 A. Yes, as of this point.
- 19 Q. And if we go on further in that
- 20 paragraph, to the next sentence it says that he
- 21 stated they expected to have results from the VA
- 22 study fairly soon, that they actually expected
- 23 the results in the summertime. Then it goes on
- 24 to say that Dr. Katz told us that Dr. Judy
- 25 Racoosin was leading this effort and the division

- 1 year, 2003.
- 2 Q. And do you recall what the results of
- 3 that study showed?
- 4 A. Yes. They found similar diabetes risk
- 5 between risperidone, olanzapine and quetiapine.
- 6 MR. KANTRA: Can we go then, to
- 7 take a look at EL2016, and can we blow up the
- 8 title there for a minute?
- 9 Q. (BY MR. KANTRA) This is an article
- 10 entitled Diabetes Risk Associated with the Use of
- 11 Olanzapine, Quetiapine and Risperidone in
- 12 Veterans Health Administration Patients with
- 13 Schizophrenia published in the American Journal
- 14 of Epidemiology.
 - Are you familiar with this article?
- 16 A. Yes.

- 17 O. And is this the article that includes
- 18 the results that were first presented in August
- 19 of 2003?
- 20 A. That's right.
- 21 Q. Okay.
- MR. KANTRA: And if we can go,
- 23 Nick, and look at table 4. And, in particular,
- 24 if we can look at the last line of that table?
- 25 Q. (BY MR. KANTRA) Did this study include

1 information about the rates of diabetes across the atypical antipsychotic medications?

A. Yes. What you see on the bottom line 3 4 here are the rates of diabetes. These rates, 5 these numbers are per hundred patient years. So, 6 in other words, if there's a doctor that's

treating 100 patients with schizophrenia, which many of us would have in a typical practice, this

is saying that you're -- that they should expect

10 to see that four of those are going to be

11 developing new diabetes in the course of a year 12 on average.

13 And what you see going across, 14 they're comparing the different treatment arms, 15 looking for what's the relative rates, are they 16 different on one of these atypical antipsychotics

17 versus another? So, the first one on the list is 18 olanzapine. 4 point --

19 MR. KANTRA: Just a second. Nick, 20 can you go back up, just so we can see the top of 21 the chart to see how the drugs -- thanks.

22 A. Okay. So I probably don't need to read 23 it for you, then. You can see olanzapine, 4.1

per hundred; risperidone, 3.9 per hundred;

25 quetiapine, 4.3 per hundred; clozapine, 4.9 per

Q. And the labeling change that FDA 1

2 requested in September of 2003 was approximately

a month after that?

4 A. That's right. 5

MR. KANTRA: You can take that

6 down.

7 (BY MR. KANTRA) I want to direct your

attention to another issue that's been discussed

in this trial, and that is with respect to a

Japanese labeling change that took place with 10

11 respect to Zyprexa in 2002.

12 And I'll ask you if you're familiar

13 with that labeling change?

14 A. Yes.

15 Q. And was it that labeling change that

16 included a contraindication for the use of

17 Zyprexa in patients who had diabetes?

In Japan, right. A.

19 Q. Okay. And what is a contraindication?

20 Contraindication means the label is

21 saying, don't use this drug in this situation.

22 So in that case, in patients with diabetes.

23 Q. Did Lilly advise FDA about the fact that

24 the Japanese had made a change to their label to

add this contraindication?

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hundred; and haloperidol, the typical antipsychotic, 3 per hundred.

3 MR. KANTRA: And if we can go to internal page 3 of this document. And, in particular, if we can go to the results section,

look at the second paragraph. And, in particular

the second and third sentences of that.

8 Q. (BY MR. KANTRA) And what were the 9 conclusions of the authors with respect to

10 whether or not there were significant differences

11 among the atypical antipsychotics with respect to 12 the risk of diabetes?

13 A. So, what you just looked at were the

14 rates of diabetes, and then they did statistical analyses on those to try to control for other 15

16 risk factors and looked at the risk of which

atypical you're on. And what they said -- what

they concluded is that the differences in risk,

19 differences in risk between olanzapine,

20 risperidone and quetiapine are negligible.

21 Q. And this was the study in which FDA was

22 involved in the design; is that right?

23 A. Yes, it was a very important study and 24 it was with one that the FDA had told us they

25 were quite interested in.

1 Α. Yes. 2

18

And within what time frame did it do so?

3 A. I remember it was prompt. I don't know

4 exactly how many days it was.

5 Do you recall when the labeling change

6 for the Japanese took place? In what month of 7 2002?

8 A. I believe it was in April.

9 Okay. As you mentioned before, it would

10 be Lilly's standard practice to document any

11 interactions with FDA, the regulatory group would

12 do that; is that correct?

13 That's been my experience, yes.

14 O. Okay.

MR. KANTRA: Can we bring up

16 EL2044? And, again, can we look at the subject

of the communication which is -- I think that's 17

18 going to be at the top of the document.

19 Q. (BY MR. KANTRA) And the subject of the 20 communication shows it as being a communication

21 regarding labeling change in Japan; is that

22 right?

15

23 A. Yes.

24 Okay.

25 MR. KANTRA: And if we go down,

- 1 then, Nick, to the beginning of the section, the
- 2 first sentence of the discussion details.
- 3 O. (BY MR. KANTRA) And it states there that
- 4 on Friday, April 12th, 2002, Drs. Breier and
- Brophy -- let's pause on that for a second.
- 6 Dr. Breier, who is he in April of 7 2002?
- 8 A. He was the leader of the Zyprexa product 9 team, the global Zyprexa team.
- 10 Q. And Dr. Brophy who is a part of the
- 11 regulatory group there; is that right?
- 12 A. Dr. Brophy is the director of the
- 13 neuroscience regulatory group at Lilly.
- Q. So they contacted Dr. Laughren to inform
- 15 the division of neuropharmacological drug
- 16 products that the olanzapine label in Japan was
- 17 being revised to include information regarding
- 18 hyperglycemia and diabetes and the warnings and
- 19 the contraindications sections?
- 20 A. Right.
- 21 Q. Is that consistent with your
- 22 understanding of the information that was
- 23 conveyed to FDA on that date?
- 24 A. Yes.
- 25 Q. Are you aware that Lilly submitted two

- 1 FDA about this Japanese labeling change?
- 2 A. That's right.
- 3 Q. Okay.
- 4 MR. KANTRA: Can we bring up
- 5 EL2629?
- 6 Q. (BY MR. KANTRA) And this is a document
- 7 that's entitled Analysis of Japanese Data on
- 8 Hyperglycemic and Diabetic Spontaneous Serious
- 9 Adverse Events Associated With the Use of
- 10 zyprexa. And the date on this document, as with
- 11 the last one, is April of 2002; is that right?
- 12 A. That's right.
 - MR. KANTRA: And if we can go to
- 14 internal page 6 of this document. And, in
- 15 particular, if we can look at the first paragraph
- 16 of section 3.

- 17 Q. (BY MR. KANTRA) And this reflects that
- 18 there were a total of 13 cases that were reviewed
- 19 of the nine that ultimately submitted that
- 20 supported that change, and with respect to these
- 21 cases, what did the review of these cases show in
- 22 regards to these patients?
- A. Well, it's summarized on the screen, but
- these were from Japan, the sort of spontaneous
- 25 adverse events that we talked about earlier,

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- 1 special reports regarding the Japanese label
- 2 change to FDA?
- 3 A. We did.
- 4 Q. And did those submissions provide FDA
- 5 with information on the specific adverse events
- 6 on which the Japanese regulatory authority relied
- 7 to change the label?
- 8 A. Yes.
- 9 Q. Okay. Did you personally review those
- 10 adverse events?
- 11 A. Yes.
- 12 Q. Okay.
- MR. KANTRA: Can we bring up
- 14 EL2645?
- Q. (BY MR. KANTRA) And do you recognize
- 16 this as the submission that went into FDA with
- 17 respect to the individual cases that supported
- 18 the labeling change in Japan?
- 19 A. Yes.
- 20 Q. Okay. And by the way, how many cases
- 21 supported that labeling change in Japan, if you
- 22 recall?
- 23 A. There were nine -- nine people.
- Q. Was there a second document as well that
- 25 provided additional information from Lilly to the

- 1 things that were communicated to Lilly. And what
- 2 it showed was that for most of these patients --
- 3 it was not clear. It was not clear what was
- 4 leading to problems for them in some cases and in
- 5 other cases it was pretty clear that there
- 6 were -- there were compounds, there were other
- 7 issues involved. So, for example, two of these
- 8 unfortunately were fatalities. Looking at those
- 9 two myself, to me it was very clear that there
- 10 were other things leading to their death, not
- 11 olanzapine. But overall, we looked at these and
- 12 our conclusion on these cases was that there
- 13 could be no definite conclusion about -- about
- 14 what it would mean for olanzapine.
- 15 Q. In some of those cases as reflected up
- 16 there showed that a couple of patients weren't
- 17 even taking Zyprexa at the time of the event,
- 18 correct?
- 19 A. That's correct. Out of these
 - 0 patients -- out of these 13, two of them were not
- 21 even on the medicine. They were on it sometime
- 22 in the past.
- Q. It also suggests up there that four of
- 24 these patients had a known diagnosis of diabetes
- 25 before they started taking Zyprexa?

- A. That's right. There were at least four that had diabetes because it had been documented before they were even on Zyprexa.
- 4 Q. And another five of them that were5 suggestive of undiagnosed preexisting diabetes,6 right?
- 7 A. That's right. There were patients with8 things like fasting blood sugars that would have
- 9 put them even in the diabetes range even if the doctor had not made an official diagnosis of
- 11 diabetes before they went on to olanzapine.
- 12 Q. Did Lilly disagree with this labeling 13 change in Japan?
- 14 A. Yes.
- 15 Q. Why?
- 16 A. Because we thought the con -- the
- 17 conclusion was wrong.
- 18 O. Based on the data that was available?
- 19 A. We'd looked at these cases and did not
- 20 feel that these cases merited a change especially
- 21 as you look at these patients in light of
- 22 everything that we knew from cases we were
- 23 getting, all these reviews that we had been
- 24 doing, all the clinical trial data. We were
- 25 confident, we are confident that -- that it

- Q. (BY MR. KANTRA) Why don't we talk, then,
- 2 about the September 2003 label change and ask
- 3 you, first, whether you recall that in September
- 4 of 2003 FDA, in fact, asked Lilly to change its
- 5 label to add a warning with respect to diabetes?
- 6 A. That's right.
 - MR. KANTRA: Can we bring up
- 8 EL2135?

- 9 Q. (BY MR. KANTRA) Dr. Baker, do you
- 10 recognize this as the letter that requested that
- 11 Lilly change its labeling with respect to
- 12 diabetes?
- 13 A. Yes.
- 14 Q. And this letter wasn't sent only to
- 15 Lilly, was it?
- 16 A. No. My understanding was that the
- 17 manufacturers of all the atypical antipsychotic
- 18 drugs had the same request.
- 19 Q. And, in fact, that second paragraph of
- 20 that letter says just that, doesn't it?
- 21 A. Oh, yes. It says it refers to all
- 22 atypical antipsychotics.
- 23 Q. If we look --
- MR. KANTRA: Nick, if we go down a
- 25 little bit further to the actual text of the

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- 1 wasn't the right -- the right choice,
- 2 scientifically, medically speaking.
- 3 Q. Did you believe -- did Lilly believe
- 4 that a contraindication with respect to patients
- 5 who had diabetes could be potentially harmful to
- 6 patients?
- 7 A. Yes, we were very concerned about that.
- 8 Q. Why?
- 9 A. Well, because we know that Zyprexa -- is
- 10 a medicine for some individuals is -- is the best
- 11 choice for treating their mental illness, and we
- 12 knew that this would mean -- this would mean that
- 13 patients who had diabetes, it was taking away the
- 14 choice from the doctor about weighing risks
- 15 against that potential benefit for patients that
- 16 may need it or maybe even patients that were
- 17 already on it for whom it was working. That
- 18 wasn't a good thing.
- MR. KANTRA: Judge, I can either
- 20 move into a new topic or we can take a break
- 21 here. Either way is fine.
- THE COURT: I take it that you've
- 23 got quite some time left with this witness. Why
- 24 don't you keep going until 1:30 and then we'll
- 25 break.

- 1 warning itself. And if we can go in particular
- 2 to the sentence that begins with "assessment of
- 3 the relationship."
- Q. (BY MR. KANTRA) Dr. Baker, this class
- 5 labeling from FDA acknowledges that there is the
- 6 possibility of an increased risk of diabetes in
- 7 patients with schizophrenia, right?
- 8 A. Yes.
- 9 Q. And after three years of evaluating
- 0 data, FDA didn't state in this warning that there
- 11 was a causal relationship between Zyprexa and
- 12 diabetes, did it?
- 13 A. To the contrary, it said that it's not
- 14 completely understood what the relationship was
- 15 between treatments and the development of these
- 16 events.

- Q. And the FDA didn't rank the atypical
- 18 antipsychotics with respect to the risk of
- 19 diabetes, did it?
 - A. That's right. Again, to the contrary.
- 21 It said that the data available at this time were
- 22 not sufficient for such a ranking.
- Q. And in contrast to Japan, this labeling
- 24 didn't tell physicians in the U.S. that Zyprexa
- shouldn't be used in patients with diabetes,

8

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- 1 right?
- 2 A. Right.
- 3 Q. Now, the labeling also --
- 4 MR. KANTRA: If we can drop down,
- 5 Nick, to the next paragraph.
- 6 Q. (BY MR. KANTRA) The labeling also
- 7 included information about monitoring for
- 8 patients, right?
- 9 A. Yes.
- 10 Q. Okay. And what kind of information did
- 11 this labeling provide with respect to monitoring?
- 12 A. Excuse me. It said that any patients
- 13 started on atypical antipsychotics should be
- 14 monitored for symptoms of diabetes. All patients
- 15 should be assessed for the risk factors for
- 16 diabetes because of the -- the likelihood of
- 17 developing diabetes during treatment.
- 18 Q. And with respect to patients who have
- 19 diabetes, was there information on that as well?
- 20 A. Right. It said that patients who do
- 21 have diabetes need to be monitored, have their
- 22 sugars monitored in course of their treatment
- 23 with the treatment with atypical antipsychotics.
- 24 Q. Were these positions of monitoring
- 25 consistent with routine good clinical practice?
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1

- A. Yes. All of these things would have
- 2 been part of routine good medical care, even
- 3 before the labeling.
- 4 Q. How did the information that was
- 5 included in this new warning that was put in the
- 6 label as of October of 2003 compare to
- 7 information that the company had been sharing
- 8 with physicians outside the label before
- 9 September of '03?
- 10 A. I think these changes echoed much of
- 11 what Lilly had been sharing in other ways with
- 12 physicians before this time.
- 13 Q. How did Lilly respond to FDA's request
- 14 to change the label?
- 15 A. We agreed. We accepted the request.
- 16 Q. And why did Lilly accept this change?
- 17 A. FDA had asked for it and we made the
- 18 change.
- 19 Q. Okay. What involvement did you have, in
- 20 particular, with respect to the September, 2003
- 21 labeling change?
- 22 A. I was part of the team at Lilly -- at
- 23 Lilly that discussed it and made the decision to
- 24 accept the change, and then I particularly played
- 25 a role as part of the U.S. medical group in

- 1 communicating this as soon as it changed to
- 2 physicians using Zyprexa.
- 3 Q. And what were the ways in which Lilly 4 went about letting physicians know that there had
- 5 been a change in the labeling as of 2003 about
- 6 this diabetes warning?
 - A. Many different ways.
 - Q. Okay. And can you tell the jury some of
- 9 those ways that Lilly communicated that
- 10 information?
- 11 A. Sure. We changed the label so all the
- 12 package inserts that they would get with the
- medicines or on our web site, the label was
- 14 changed. We issued a press release so that it
- 15 would be picked up in the news or in physicians'
- 16 newsletters about this.
- We -- I took part myself actually
- 18 in right away training or sales representatives
- 19 and instructed them to let all the doctors that
- 20 they're calling on know about it to let them know
- 21 the very next time that they spoke to any of the
- 22 doctors that they're talking to. We made slides
- 23 and provided it to people that were speaking,
- 24 physicians speaking on Lilly's behalf so that
- they could discuss it with physicians as well.
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 - We prepared a medical letter for
- 2 doctors describing this and the background behind
- 3 it. We made it available through the electronic
- 4 formats that doctors would use like the
- 5 Hippocrates, some people use it as a electronic
- 6 database for adverse events. And Lilly mailed
- 7 letters to doctors in the United States
- 8 describing this label change.
- 9 Q. And are you familiar with the letter
- 10 that was actually sent to physicians?
- 11 A. Yes.
- 12 O. And when was that letter sent?
- 13 A. It was sent very shortly after this
- 14 change, within a couple weeks.
 - MR. KANTRA: Can we bring
- 16 up EL2972?
 - Can you blow that up just a little
- 18 bit, Nick?

15

- 19 Q. (BY MR. KANTRA) You see the date on this 20 letter?
- 21 A. October 6th, 2003.
- Q. Do you recognize this as the letter that
- 23 was sent to physicians in regards to the change
- 24 in labeling?
- 25 A. Yes.

16

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Q. What is the information that's conveyed 2 to physicians in regards to this particular 3 letter?

A. It conveys in the cover sheet that the FDA had asked for this, and it included in this a copy of the press release describing the change. 7

Q. And -- as well it includes the package 8 insert that includes the new warning?

9 A. As with any of these, it included our 10 label, sent a copy of the new label.

11 Q. Had FDA requested of this letter --12 actually, if we go down just to the bottom of that letter, can we see the signature there? You see the reference to Dr. Tohen?

15 A. Yes.

16 O. That was set out by the leader of the 17 Zyprexa product team?

18 A. At this time, yes, Dr. Tohen had taken 19 over from Dr. Breier as the leader of the team.

20 Q. Had FDA requested that Lilly send out 21 this letter as of October of '03?

22 A. No, Lilly sent this because we wanted 23 physicians to know right away about the change.

24 Q. Did Lilly ultimately send out another

25 letter at the request of FDA?

1 this, and it may be that sometime next week I may have to give you a day off while I do things with the lawyers to get it ready for closing arguments and jury instructions. I'll keep you posted when that goes on.

6 Once again, I'd remind you, please 7 don't discuss this case with anyone or let anyone discuss it with you. Please try to keep an open 9 mind until you've heard all of the evidence in 10 this case, and please do not read any or listen to any media or anything on the Internet that might have something to do with the subject 13 matter of this case.

14 Have a nice weekend, and I'll see 15 you all on Monday at the usual time.

(Jury out.)

17 THE COURT: Please be seated.

18 We're outside of the presence of

19 the jury. Just a couple of things before we end.

20 You'll be getting me stuff, I take 21 it, by the end of the afternoon so I can do work

22 this weekend. I looked at my calendar and it

23 appears highly unlikely that I can take an

afternoon to deal with jury instructions. That

kind of leaves me two choices. Either we'll

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That's right.

And was the substance of that Dear Doctor letter different from the letter that

Dr. Tohen sent?

5 A. No.

1

16

17

19

6 Q. You were involved, Dr. Baker, with the most recent label change regarding hyperglycemia 8 in 2007?

9 A. I was.

10 Q. Okay.

11 MR. KANTRA: Actually, as I'm 12 looking at this, we're looking at another -- a 13 different label change.

14 THE COURT: This looks like a good breaking point. 15

Ladies and gentlemen of the jury, we've reached the end of our trial day. Some of you have asked if we're -- as I understand it, if we're sort of still on schedule to have this case go to you towards the end of next week, and I 21 think we are, at least for now. It's going to

22 depend on a bunch of things, but that's what I'm

23 hearing. So I'm just letting you know that. 24

When exactly, it's probably going 25 to be towards the end of next week that we do 1 start at 4:15 one evening and do jury

instructions then and go late, or we'll take a

morning. Which of those two I will do will

depend on what I need to do to get this case to

the jury before the end of next week.

6 If it looks like we're going to need Thursday for evidence and those things, we're probably going to be working late Wednesday

9 night or Thursday night. If it looks like the

10 evidence actually closes towards Wednesday, I'm more inclined to use the day on Thursday, so then

do what we need to do on Friday. We'll play that

13 by ear for now and see where we're going.

14 The other thing -- and I don't 15 really need -- the presiding judge was meeting with the paralegals association, I think, and

17 suggested that it might be interesting for the

18 paralegals association to get a demonstration of

19 the technology that's being used in this

20 courtroom, something that I continue to be

21 impressed with. If we do that, what it might end

22 up meaning is that I'll see if I can find some

23 other judge's courtroom to do my afternoon

24 hearings, and let you set up something during the

25 day but I'll talk to the presiding judge.

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1	Assuming that we can set that up, is that okay	
2	with the people that might have to do the	
3	demonstrations and do the work?	
4	MS. GUSSACK: Yes, Your Honor.	
5	THE COURT: I appreciate that and	
6	I'll talk to the presiding judge and let her know	
7	that and we'll see what we can work out.	
8	MR. ALLEN: Judge, I'll put on the	
9	seminar for technology.	
10	MR. LEHNER: I'll supply the yellow	
11	pads.	
12	THE COURT: I'm surprised that some	
13	of the attorneys haven't been invited to the	
14	various trial lawyers or defense lawyers	
15	seminars, but I'll let the lawyers take care of	
16	themselves.	
17	Anything else we need to talk	
18	about?	
19	MS. GUSSACK: No, Your Honor.	
20	MR. ALLEN: Margarita.	
21	THE COURT: I think I gave you	
22	my we'll be off record now.	
23	THE CLERK: Please rise. Superior	
24	Court now stands in recess. Off record.	
25	(Trial adjourned at 1:33 p.m.)	
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1	REPORTER'S CERTIFICATE	
2	REI ORTERS CERTIFICATE	
3	I, SANDRA M. MIEROP, Certified Realtime	
4	Reporter and Notary Public in and for the State of	
5	Alaska do hereby certify:	
6	That the proceedings were taken before me at	
7	the time and place herein set forth; that the	
8	proceedings were reported stenographically by me	
9	and later transcribed under my direction by computer transcription; that the foregoing is a true record	
11	of the proceedings taken at that time; and that I am	
12	not a party to, nor do I have any interest in, the	
13	outcome of the action herein contained.	
14	IN WITNESS WHEREOF, I have hereunto subscribed	
15	my hand and affixed my seal this 21st day of March,	
16	2008.	
17		
18		
19	CANDDA MAMEROD CRR CCR	
20	SANDRA M. MIEROP, CRR, CCP	
20	Notary Public for Alaska My commission expires: 9/18/11	
21	iviy commission expires. 9/10/11	
22		
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24		
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