Exhibit 26

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY,
Plaintiff,
vs. No. C-05-04158-MHP
ROCHE MOLECULAR SYSTEMS, INC, et al.,

Defendants.

AND RELATED COUNTERCLAIM.

DEPOSITION OF PAUL VOLBERDING, M.D.
Palo Alto, California
Sunday, August 19, 2007

Reported by:
GINA GLANTZ
CSR No. 9795, RPR, RMR
JOB No. 3-70580

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

THE BOARD OF TRUSTEES OF THE LELAND STANFORD JUNIOR UNIVERSITY,
Plaintiff,
vs. No. C-05-04158-MHP
ROCHE MOLECULAR SYSTEMS, INC, et al.,

Defendants.

AND RELATED COUNTERCLAIM.

Deposition of PAUL VOLBERDING, M.D., taken on behalf of Roche Defendants, at 3000 El Camino Real, Five Palo Alto Square, 4th Floor, Palo Alto, California, beginning at 10:10 a.m. and ending at 3:40 p.m., on Sunday, August 19, 2007, before GINA GLANTZ, Certified Shorthand Reporter No. 9795.

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EXHIBITS

11:08:57 Q Okay. We're going to turn to more of a
11:09:01 definitional topic now. HIV is a retrovirus; correct?
11:09:07 A Are you asking me to refer to a document?
11:09:10 Q No, I'm not. At the moment, I'm not asking you
11:09:11 to refer to a document, so you can set those aside.
11:09:17 You understand that HIV is a retrovirus; is
11:09:21 that right?
11:09:21 A That's right.
11:09:23 Q And that means its genetic material is in the
11:09:26 form of RNA; is that right?
11:09:28 A That's part of the definition, yes.
11:09:30 Q What's the remainder of the definition?
11:09:32 A Well, retroviruses employ a reverse
11:09:37 transcriptase to copy their genetic material. They
11:09:42 integrate that genetic material into the host cell and
11:09:47 are then reproduced by the cell.
11:09:50 Q And the reproduction by the cell involves
11:09:53 forward transcription; right?
11:09:55 A That's part of the -- that's one of the steps,
11:09:58 yes.
11:09:58 Q And then there's -- and then there's an
11:10:01 assembly step; right?
11:10:02 MS. RHYU: Objection. Vague.
11:10:03 THE WITNESS: Those are -- that's another step,
11:10:08 yes.

11:10:09 BY MR. CANNON:
11:10:09 Q Is it fair to say that one of the goals of
11:10:17 antiretroviral therapy is to halt the life cycle of HIV?
11:10:21 MS. RHYU: Objection. Vague, lacks foundation,
11:10:25 calls for speculation.
11:10:25 THE WITNESS: It's fair to say that
11:10:31 antiretroviral therapy is designed to slow the growth of
11:10:36 the virus.
11:10:39 BY MR. CANNON:
11:10:46 Q Do you recall when was the first time you put a
11:10:50 patient on antiretroviral therapy?
11:11:03 A I don't recall a specific patient or a specific
11:11:09 date, but I put patients on retroviral therapy in 1986
11:11:20 certainly, and maybe before that, but certainly in 1986.
11:11:28 Q Do you recall the antiretroviral therapy that
11:11:31 you put a patient on as early as 1986?
11:11:34 A The first specifically antiretroviral agent
11:11:45 that I used, I believe, was AZT.
11:11:48 Q That's a nucleoside analog; right?
11:11:51 A Yes, it is.
11:11:51 Q That inhibits reverse transcription?
11:11:55 A Yes, it does. And I believe in my declaration,
11:12:10 I was a little confused in my terminology. It inhibits
11:12:10 the replication of the genome, which is not a term that
11:12:15 I would usually use, but it inhibits the copying or, in

11:12:19 that sense, the replication of the genome of the virus.
11:12:23 Q Are you pointing out a particular sentence in
11:12:26 your declaration? Perhaps you could point me to it.
11:12:44 A On page 6, in paragraph 16, line 27, in which
11:13:01 I'm referring to reverse transcription.
11:13:03 Q So could you just clarify your testimony with
11:13:11 respect to the sentence? I'll just read it, "Further,
11:13:16 antiretroviral agents are not limited to drugs effective
11:13:19 in reducing or stopping the genome 'replication' step."
11:13:24 What is it you're trying to clarify?
11:13:25 A Just that the way -- as I look at this, after I
11:13:31 wrote it, I realize that replication would generally
11:13:36 refer to the entire reproduction of the entire virus,
11:13:41 but replication, in this sense, I was using as copying,
11:13:45 which is a common use of the term as well. So it is
11:13:50 reverse transcription, it's just not the language that I
11:13:53 would usually use.
11:13:56 Q Now, the nucleoside analogs were the first
11:14:08 antiretroviral therapies; correct?
11:14:16 MS. RHYU: Objection. Vague as to
11:14:20 "antiretroviral therapies."
11:14:22 THE WITNESS: The nucleoside analogs were the
11:14:27 first compounds shown to be effective in inhibiting the
11:14:38 virus in patients with HIV infection, but other agents
11:14:42 had been -- other antiretroviral agents had been looked

11:14:45 at in the laboratory at that time, or maybe even before.
11:14:49 BY MR. CANNON:
11:14:49 Q It's fair to say that a lot of agents were
11:14:54 looked at but only a limited number actually
11:14:58 demonstrated clinical value?
11:14:59 A That's true.
11:15:04 Q And that's true throughout the years up to the
11:15:06 present day; correct?
11:15:07 A Could you restate that?
11:15:10 Q It's true that even up to today, there's a lot
11:15:15 of agents that are possibilities but only a limited
11:15:17 number actually end up having clinical value?
11:15:20 A That's true.
11:15:21 Q Do you recall when was the first time you put a
11:15:28 patient on therapy when that therapy was not a
11:15:31 nucleoside analog?
11:15:41 A I don't recall which clinical trials I was
11:15:46 involved with at the time, but nonnucleosides and
11:15:50 protease inhibitors were entering clinical trials in
11:15:53 1990, 1991, and I might very well have participated in
11:15:57 those trials.
11:15:58 Q Do you know for a fact whether you participated
11:16:00 in those trials?
11:16:01 A I don't know for a fact that I did.
11:16:08 Q Is there anything in your CV that might refresh

11:39:13 MS. RHYU: Objection. Vague as to time, vague
11:39:16 as to "therapy."
11:39:19 THE WITNESS: Patients can receive medications
11:39:23 through conventional prescriptions or through
11:39:27 participating in clinical investigations.
11:39:33 BY MR. CANNON:
11:39:34 Q So in 1991 when this article was published, is
11:39:41 it true that the only way for an HIV-infected patient to
11:39:45 obtain an antiretroviral therapy other than zidovudine
11:39:52 was to be enrolled in a clinical trial?
11:39:55 A When this article was published, which was,
11:40:00 again, in January, it looks to be, 1991, zidovudine was
11:40:05 the only prescription antiretroviral available, yes.
11:40:12 Q In 1991, do you know what percentage of
11:40:16 HIV-infected patients were enrolled in clinical trials?
11:40:22 MS. RHYU: Objection. Calls for speculation.
11:40:32 THE WITNESS: I don't have any knowledge of how
11:40:34 many patients were involved in clinical trials in 1991.
11:40:44 BY MR. CANNON:
11:40:44 Q Is it fair to say that in 1991 the majority of
11:40:49 patients who suffered from HIV infection were not
11:40:52 receiving therapy -- antiretroviral therapy, other than
11:40:57 zidovudine?
11:40:58 MS. RHYU: Objection. Calls for speculation,
11:41:00 lacks foundation.

11:41:03 THE WITNESS: Very few patients were being
11:41:06 treated in 1991 with HIV infection.
11:41:10 BY MR. CANNON:
11:41:10 Q With HIV infection or for HIV infection?
11:41:17 A Both, probably.
11:41:19 Q When you say "very few patients," you mean very
11:41:22 few patients were being treated with drugs other than
11:41:25 zidovudine?
11:41:26 A Zidovudine was the most used drug for the
11:41:31 treatment of HIV infection in early 1991.
11:41:36 Q So other than that drug, very few patients were
11:41:42 being treated with other drugs?
11:41:48 MS. RHYU: Objection. Calls for speculation,
11:41:49 lacks foundation, misstates prior testimony.
11:41:53 THE WITNESS: I think, as I said, the patients
11:41:54 were participating in clinical investigation of other
11:41:57 drugs, including other nucleosides, nonnucleosides, and
11:42:02 proteases in 1990, 1991.
11:42:07 BY MR. CANNON:
11:42:07 Q Do you know how many patients were involved in
11:42:09 those trials?
11:42:09 A Not as I sit here, no.
11:42:11 Q Do you know how many treating physicians were
11:42:13 involved with those trials?
11:42:14 A I think, as I said earlier, there were probably

11:42:20 several hundred physicians involved in clinical trials
11:42:24 in 1990 and 1991.
11:42:27 Q Would your answers change if the time frame
11:42:35 moved up to 1992, to the previous set of questions and
11:42:39 answers?
11:42:39 MS. RHYU: Objection. Compound, vague.
11:42:42 THE WITNESS: During 1990 to 1992, there were
11:42:52 large clinical trials in progress across the country,
11:42:58 but I don't know how many patients were treated in any
11:43:01 one of those years.
11:43:08 BY MR. CANNON:
11:43:11 Q Is it fair to say that as of May 1992, the
11:43:14 majority of HIV-infected patients were not receiving
11:43:19 antiretroviral therapy other than zidovudine?
11:43:25 MS. RHYU: Objection. Vague as to
11:43:28 "antiretroviral therapy" and calls for speculation.
11:43:39 THE WITNESS: In 1992, I don't know the
11:43:43 fraction of patients receiving antiretroviral through
11:43:47 clinical trials versus through common -- through
11:43:49 available prescriptions, but there were many patients on
11:43:55 clinical trials at the time.
11:43:58 BY MR. CANNON:
11:43:58 Q But the majority of the patients were not
11:44:01 involved in clinical trials; right?
11:44:02 A I actually don't know that.

11:44:34 MR. CANNON: Let's mark the next exhibit.
11:44:34 (Deposition Exhibit 7 marked.)
11:44:54 MR. CANNON: Marked as Exhibit 7, an essay
11:45:00 published in The Journal of Infectious Diseases in 1995,
11:45:08 and it appears to be written by Paul Volberding.
11:45:11 Q Do you recall writing this essay in The Journal
11:45:18 of Infectious Diseases around 1995?
11:45:18 A I actually don't specifically remember writing
11:45:24 this. I believe that I did.
11:45:38 Q So this is 1995, so we've moved up in that time
11:45:42 frame past May 1992 and up into 1995. And I'd like to
11:45:47 focus your attention on the first sentence here, it
11:45:49 reads, "Current therapy for human immunodeficiency virus
11:45:54 (HIV) disease includes one or more of the available
11:45:56 nucleoside analogues that inhibit reverse
11:46:01 transcriptase." Do you see that?
11:46:02 A I do.
11:46:03 MS. RHYU: Feel free to review the rest of the
11:46:05 paragraph, Dr. Volberding.
11:46:10 BY MR. CANNON:
11:46:10 Q That first sentence is an accurate statement,
11:46:12 is it not?
11:46:14 MS. RHYU: Objection. Document speaks
11:46:16 for itself.
11:46:16 THE WITNESS: It's what I said, yes.

12:12:15 is relevant to. If you can identify what opinion or
12:12:18 what claim term that question is relevant to, I'd be
12:12:22 happy to let the witness answer that question.
12:12:24 MR. CANNON: How about "therapeutically
12:12:25 effective," that's a claim term. It's relates to
12:12:28 therapeutically effective.
12:12:51 MS. RHYU: Okay, with the caveat that in the
12:12:53 context of construction of therapeutically effective,
12:12:57 the witness is answering the question.
12:12:58 Go ahead and answer the question,
12:13:00 Dr. Volberding.
12:13:00 MR. CANNON: Well, there's no caveats. I mean,
12:13:02 it's a question and an answer, so, you know, he gets to
12:13:06 give his full and complete testimony. He doesn't get to
12:13:09 give it subject to any, you know, limitations. Either
12:13:12 it's an answer or it's not an answer, so I can't accept
12:13:17 an answer with caveats. I mean, you can make objections
12:13:20 and reserve rights all you want, but I need the witness
12:13:23 to give a complete answer, and if you instruct him not
12:13:25 to answer, okay, we'll deal with that later, but --
12:13:27 MS. RHYU: The witness can answer the question,
12:13:30 I'm objecting as to the aspect of the answer and the
12:13:32 question that go -- that goes beyond the scope of this
12:13:36 deposition.
12:13:38 MR. CANNON: Okay.

12:13:39 Could you repeat my question back and let's see
12:13:42 if we can get an answer.
12:14:07 (Record read as follows:
12:14:07 "Q This is a yes-or-no question
12:14:07 I'm asking. Do you know, sitting here
12:14:07 today, the reason that you directed the
12:14:07 first patient that you can recall to get
12:14:09 a viral load testing measurement done?")
12:14:09 THE WITNESS: No.
12:14:14 MR. CANNON: Can you ask the first question I
12:14:15 asked that got an instruction not to answer?
12:14:40 (Record read as follows:
12:14:40 "Q Dr. Volberding, when you first
12:14:40 directed a patient to obtain a viral
12:14:40 load measurement, can you tell me why
12:14:40 you directed the patient to obtain a
12:14:41 viral load measurement?")
12:14:41 MS. RHYU: Objection. Outside the scope.
12:14:42 THE WITNESS: I don't recall the reason that I
12:14:44 ordered the first viral load testing, I don't remember
12:14:47 ordering my first viral load test in a patient.
12:14:57 BY MR. CANNON:
12:14:57 Q What's the earliest time that you can remember
12:15:00 ordering a viral load test?
12:15:02 A I don't recall when I ordered the first viral

12:15:11 load test.
12:15:14 Q But you've ordered viral load tests -- strike
12:15:14 that.
12:15:18 But you have ordered patients to do viral load
12:15:21 tests over the years; correct?
12:15:23 A Yes, of course.
12:15:24 Q And can you tell me the reason that you have
12:15:25 ordered patients to obtain viral load tests over the
12:15:29 years?
12:15:30 MS. RHYU: Objection to the extent it's outside
12:15:31 the scope.
12:15:33 THE WITNESS: Either in the context of clinical
12:15:42 care, or in the course of clinical investigations.
12:15:47 BY MR. CANNON:
12:15:48 Q But what is the medical reason for ordering a
12:15:50 viral load test for a patient infected with HIV?
12:15:54 MS. RHYU: Objection. Lacks foundation and
12:15:55 vague, and outside the scope.
12:15:59 THE WITNESS: Viral load tests help to -- or
12:16:05 they help to establish the stage of HIV disease.
12:16:15 BY MR. CANNON:
12:16:15 Q Do they help to establish or do they absolutely
12:16:18 establish?
12:16:19 A They help to establish.
12:16:22 Q Are there other factors that bear upon the

12:16:27 state of HIV disease?
12:16:29 MS. RHYU: Objection. Outside the scope. And
12:16:32 instruct the witness not to answer unless you can
12:16:40 identify what claim construction this is relevant to.
12:16:43 (Instruction not to answer.)
12:16:43 MR. CANNON: It's all relevant to
12:16:46 "therapeutically effective."
12:16:49 MS. RHYU: Just a minute. Are you asking from
12:17:02 the perspective of one of skill in the art in the '90,
12:17:08 '92 time frame?
12:17:09 MR. CANNON: Can you repeat my question back.
12:17:20 (Record read.)
12:17:23 MS. RHYU: Are you asking the question as it
12:17:25 stands?
12:17:26 MR. CANNON: Just asking the question.
12:17:27 MS. RHYU: Vague as to time frame. And object
12:17:32 as to being outside the scope.
12:17:35 THE WITNESS: So in the time frame of the case,
12:17:39 from 1990 to 1992, a person of skill in the art would
12:17:48 use a variety of factors to consider the patient's stage
12:17:54 of disease, including CD4 counts and clinical symptoms
12:17:59 and signs.
12:17:59 BY MR. CANNON:
12:17:59 Q How about today, same set of factors evaluated?
12:18:06 A Today --

12:18:07 MS. RHYU: Objection. Outside the scope, not
12:18:10 relevant to claim construction.
12:18:12 THE WITNESS: Today, those would still be
12:18:14 considered along with viral load.
12:18:19 MR. CANNON: Let's take a break to change the
12:18:20 tape.
12:18:21 THE VIDEOGRAPHER: The time is 12:18 p.m.
12:18:24 We're going off the record, and this will be the
12:18:26 completion of media number 1.
12:22:11 (Interruption in the proceedings.)
12:22:18 THE VIDEOGRAPHER: The time is 12:22. We are
12:22:26 back on the record, and this will be the beginning of
12:22:28 media number 2. Please proceed.
12:22:30 BY MR. CANNON:
12:22:32 Q So I asked some questions about Exhibit 11,
12:22:34 which is the last exhibit we marked, which is "HIV viral
12:22:37 load markers in clinical practice." You see that? And
12:22:43 I just would like to note -- I'd like you to agree with
12:22:45 me, I think it's accurate, that this article, which I've
12:22:49 provided to you as Exhibit 11 in color, you had provided
12:22:52 in the packet of articles, which we marked collectively
12:22:56 as Exhibit 2. And if you could confirm that for me by
12:23:02 looking at Exhibit 2, that's the collection of articles
12:23:04 that has the band around it, and it's the second-from-
12:23:10 the-last article, bears the labels VOLB 2325 on the

12:23:18 first page. You see that?
12:23:20 A Yes, I do.
12:23:21 Q Same article; right?
12:23:22 A Appears to be.
12:23:23 Q So this article, Exhibit 11, refers to viral
12:23:34 load, and we discussed earlier a viral load refers to
12:23:39 copy number of HIV; right?
12:23:41 A I'm sorry?
12:23:45 Q The viral load refers to copy number of HIV?
12:23:48 MS. RHYU: Objection. Vague.
12:23:50 BY MR. CANNON:
12:23:51 Q Is that accurate?
12:23:52 A Yes.
12:23:52 Q Now, you would agree, wouldn't you, that a test
12:23:58 for viral load is different from a test that determines
12:24:02 whether the virus is actually present in a sample;
12:24:06 right?
12:24:06 MS. RHYU: Objection. Vague, outside the scope
12:24:08 of this witness's testimony, lacks foundation.
12:24:10 THE WITNESS: Could you repeat the question?
12:24:14 MR. CANNON: Sure.
12:24:14 Could you read it back for me, please.
12:24:29 (Record read.)
12:24:31 MS. RHYU: Same objections.
12:24:33 THE WITNESS: I'm not really sure I understand

12:24:35 the question.
12:24:36 BY MR. CANNON:
12:24:37 Q Isn't it true, in the treatment of HIV, testing
12:24:41 for the presence of HIV is a different test than testing
12:24:44 for viral load?
12:24:46 MS. RHYU: Objection. Vague, outside the scope
12:24:49 of this witness's testimony, lacks foundation.
12:25:04 THE WITNESS: Could you repeat the question
12:25:05 again? I'm sorry.
12:25:06 MR. CANNON: Sure.
12:25:06 Could you read it back, please.
12:25:27 (Record read.)
12:25:27 MS. RHYU: Same objections.
12:25:31 THE WITNESS: I'm not sure that I agree with
12:25:36 the premise.
12:25:38 BY MR. CANNON:
12:25:41 Q Viral load is a quantitative HIV RNA technique;
12:25:44 right?
12:25:45 MS. RHYU: Objection. Lacks foundation, vague,
12:25:51 lacks context, and outside the scope of this witness's
12:25:54 testimony.
12:25:55 THE WITNESS: Viral load testing, as we've said
12:26:02 earlier, refers to the measurement of the number of
12:26:06 copies of HIV RNA per unit of volume in the blood.
12:26:10 BY MR. CANNON:

12:26:11 Q That's quantitative; right?
12:26:13 MS. RHYU: Object -- same objections.
12:26:18 THE WITNESS: Quantitative and qualitative.
12:26:20 BY MR. CANNON:
12:26:21 Q How is it qualitative?
12:26:23 MS. RHYU: Objection. Outside the scope of
12:26:24 this witness's testimony, lacks foundation.
12:26:29 THE WITNESS: It's quantitative -- the viral
12:26:36 load testing itself is quantitative, you're measuring
12:26:41 the number of copies, that's the purpose of viral load
12:26:45 testing.
12:26:46 BY MR. CANNON:
12:26:47 Q You said it was qualitative as well.
12:26:50 A Well --
12:26:51 MS. RHYU: Objection. Misstates the testimony,
12:26:54 outside the scope. And what's the question?
12:27:01 BY MR. CANNON:
12:27:02 Q I'm asking how is a viral load test
12:27:04 qualitative?
12:27:05 A I would say quantitation of virus is not
12:27:09 qualitative, it's quantitative.
12:27:12 Q So in Exhibit 11, which is the HIV viral load
12:27:30 markers in clinical practice essay -- article, refers to
12:27:36 three commercially available assays, starting at the
12:27:40 bottom of the first column and going to the top of the

12:27:43 second column. You see that?
12:27:44 A This is on page 626?
12:27:48 Q 625. Bottom of the first column says, "The
12:27:54 Assays." Do you see that?
12:27:57 A Okay, yes.
12:28:01 Q And then the sentence in the paragraph
12:28:04 continues to the top of the second column. Do you see
12:28:07 that?
12:28:07 A Yes, I do.
12:28:08 Q This article refers to three commercial HIV RNA
12:28:18 assays; right?
12:28:19 A Yes, it does.
12:28:20 Q In your practice, do you recommend one type of
12:28:25 assay over another?
12:28:28 MS. RHYU: Objection. Outside the scope.
12:28:38 THE WITNESS: I'm not sure in every case which
12:28:40 assay is being used in my practice.
12:28:43 BY MR. CANNON:
12:28:44 Q So when you direct a patient to obtain a viral
12:28:47 load measurement, you don't recommend a particular type
12:28:50 of assay to be used?
12:28:52 MS. RHYU: Objection. Outside the scope.
12:28:54 THE WITNESS: Typically not.
12:28:55 BY MR. CANNON:
12:28:59 Q When you get the results, do you know the type

12:29:02 of assay that was used to generate the results?
12:29:04 MS. RHYU: Objection. Outside the scope. I'm
12:29:07 not going to let this go very much further than this,
12:29:10 Brian.
12:29:11 THE WITNESS: It's often -- if it's in the
12:29:17 course of a clinical trial, I know which assay is being
12:29:21 used in the context of clinical trial, and typically in
12:29:24 a clinical laboratory, the type of assay is mentioned in
12:29:30 the results.
12:29:32 BY MR. CANNON:
12:29:33 Q How about not in a clinical trial but just
12:29:35 treating, you know, an HIV-infected patient?
12:29:39 A That's what I just said.
12:29:41 MS. RHYU: Same objection.
12:29:41 BY MR. CANNON:
12:29:42 Q So you would know, when you got the results,
12:29:43 which assay got used?
12:29:45 A Typically.
12:29:46 Q How long does it take for you to get the
12:29:54 results when you order a viral load test to be done?
12:30:01 MS. RHYU: Objection. Outside the scope.
12:30:01 THE WITNESS: Viral load testing results are
12:30:12 returned in a variable length of time, days to weeks.
12:30:16 BY MR. CANNON:
12:30:19 Q Does it depend on the lab to which the results

12:30:21 get sent?
12:30:23 MS. RHYU: Objection. Outside the scope.
12:30:24 THE WITNESS: Of course.
12:30:26 BY MR. CANNON:
12:30:29 Q When you get the results back, does the lab
12:30:31 make recommendations about the therapy for a particular
12:30:33 patient?
12:30:34 MS. RHYU: Objection. Outside the scope. Can
12:30:45 you identify what claim construction term your question
12:30:48 relates to, Brian?
12:30:52 MR. CANNON: All of my questions today relate
12:30:53 to "therapeutically effective" and the remainder of the
12:30:56 claim terms at issue.
12:31:06 MS. RHYU: I don't see how that question that
12:31:08 you posed regarding lab recommendations today relate to
12:31:16 construction of the claim term "therapeutically
12:31:19 effective." Can you make a connection there?
12:31:22 MR. CANNON: Well, then you can instruct him
12:31:24 not to answer. I don't need to lay out for you where
12:31:26 I'm going or what my strategy is.
12:31:27 MS. RHYU: Okay. Then I instruct the witness
12:31:29 not to answer.
12:31:29 (Instruction not to answer.)
12:31:29 MR. CANNON: Could you repeat my question back
12:31:31 so we get the instruction clearly?

12:31:46 (Record read.)
12:31:48 MS. RHYU: I instruct the witness not to answer
12:31:49 because it's outside the scope of claim construction
12:31:53 testimony.
12:31:55 BY MR. CANNON:
12:31:56 Q Dr. Volberding, when you get the results back
12:31:58 from the lab, does the manufacturer of the test kit make
12:32:02 recommendations about a patient's therapy?
12:32:05 MS. RHYU: Same instruction.
12:32:07 (Instruction not to answer.)
12:32:08 BY MR. CANNON:
12:32:08 Q When you get the results back from the lab,
12:32:10 Dr. Volberding, does the manufacturer of the test kit
12:32:13 make a determination about the effectiveness of the
12:32:16 therapy for the particular patient?
12:32:18 MS. RHYU: Same objection.
12:32:21 BY MR. CANNON:
12:32:21 Q The treating physician makes a decision --
12:32:23 MS. RHYU: And instruction, sorry.
12:32:24 (Instruction not to answer.)
12:32:25 BY MR. CANNON:
12:32:27 Q And Dr. Volberding, do you follow your
12:32:29 counsel's instructions with respect to answering the
12:32:32 last few questions?
12:32:33 A Yes, I do.

12:32:34 Q Dr. Volberding, it's true, isn't it, that the
12:32:40 treating physician makes the decision about the
12:32:41 effectiveness of therapy; correct?
12:32:48 A The effectiveness of therapy is a very broad
12:32:58 term, and is determined with input from a number of
12:33:03 sources, other people on a team. Physicians are
12:33:07 certainly involved and usually centrally involved in
12:33:10 deciding whether treatment is beneficial or not.
12:33:14 Q Who makes the ultimate decision?
12:33:17 MS. RHYU: Objection. Lacks foundation.
12:33:19 THE WITNESS: Again, the definition of
12:33:27 "treatment benefit" is a very broad one. And, in fact,
12:33:33 many people on the team can have key roles in that
12:33:37 assessment, and certainly including the physician or
12:33:40 nurse practitioner, because in some cases, physicians
12:33:43 aren't directing the care of the patient. But the
12:33:47 provider, the physician, is centrally involved in
12:33:53 participating in that assessment.
12:33:56 BY MR. CANNON:
12:33:56 Q So is it your testimony that no one person
12:33:58 makes a conclusion about the effectiveness of therapy
12:34:01 for a particular patient?
12:34:02 MS. RHYU: Objection. Misstates prior
12:34:05 testimony.
12:34:06 THE WITNESS: I think the number of people make

12:34:09 the conclusion about therapy effectiveness. As I said,
12:34:15 the provider, the physician especially, is centrally
12:34:18 involved in that.
12:34:20 BY MR. CANNON:
12:34:21 Q Can you tell me who are the people that make
12:34:24 the conclusion about the effectiveness of therapy?
12:34:27 MS. RHYU: Objection. Lacks foundation.
12:34:32 THE WITNESS: And may I ask you a question?
12:34:36 BY MR. CANNON:
12:34:37 Q Sure.
12:34:37 A You're asking this in the context of my
12:34:40 practice today?
12:34:41 Q I'm asking today, yeah.
12:34:42 A The people that --
12:34:45 MS. RHYU: And again, objection. Outside the
12:34:47 scope.
12:34:51 THE WITNESS: The input into treatment benefit
12:34:57 would come from pharmacists, nurses, social workers,
12:35:05 family members, the patient, him or herself, and the
12:35:08 physician.
12:35:10 BY MR. CANNON:
12:35:10 Q So no one person makes the conclusion about the
12:35:14 effectiveness of therapy for a particular patient?
12:35:17 MS. RHYU: Objection. Misstates prior
12:35:18 testimony.

12:35:19 THE WITNESS: I think, as I've said, the
12:35:22 physician has a central role in that determination, but
12:35:29 in fact, the information comes from a number of sources,
12:35:35 and many times the key information comes from someone
12:35:37 other than the physician.
12:35:38 BY MR. CANNON:
12:35:38 Q I understand that information may come from a
12:35:41 number of sources. I'm trying to pin down to see if
12:35:44 there is an answer for the question as to who makes the
12:35:47 ultimate conclusion, if anyone, about the effectiveness
12:35:50 of therapy for a particular patient.
12:35:53 A Well, and in terms of accepting responsibility
12:35:57 for the decision, I think many of the people on the team
12:36:00 that I just mentioned would share in that
12:36:03 responsibility. Certainly, again, I'm not saying the
12:36:06 physician doesn't have an important role in that.
12:36:10 Q But is it your testimony that the physician is
12:36:13 not the only person that makes the conclusion about the
12:36:16 effectiveness of therapy?
12:36:18 A That's correct.
12:36:18 Q Does the lab that performed the assay make a
12:36:30 conclusion about the effectiveness of therapy?
12:36:33 MS. RHYU: You're asking about that today?
12:36:35 MR. CANNON: Today.
12:36:35 MS. RHYU: I instruct the witness not to answer

12:36:38 as being outside the scope of this deposition.
12:36:39 (Instruction not to answer.)
12:36:39 BY MR. CANNON:
12:36:40 Q Do you follow counsel's instructions?
12:36:42 A Yes, I do.
12:36:43 Q Does the manufacturer of the test kit make a
12:36:47 conclusion about the effectiveness of therapy for a
12:36:51 particular patient?
12:36:52 MS. RHYU: Same instruction.
12:36:53 (Instruction not to answer.)
12:36:53 BY MR. CANNON:
12:36:54 Q Do you follow counsel's instruction?
12:36:55 A I do.
12:37:07 MR. CANNON: Now would be a good time to stop
12:37:09 for a break?
12:37:09 MS. RHYU: I'm not sure. Yes, why don't we
12:37:14 stop. I hear the elevator.
12:37:17 THE VIDEOGRAPHER: The time is 12:37. We're
12:37:18 going off the record.
13:24:03 (Lunch recess.)
13:26:59 THE VIDEOGRAPHER: Good afternoon. The time is
13:27:01 1:27. We are back on the record.
13:27:05 BY MR. CANNON:
13:27:05 Q Dr. Volberding, before the break we were
13:27:08 looking at Exhibit 11, which was an article from Nature

14:54:46 A That's my understanding.
14:54:49 Q Can you tell me what antiretroviral agents were
14:55:01 known to those of skill in the art as of May 1992?
14:55:04 A The person skilled in the art in May of 1992
14:55:13 would have, I think, been broadly aware of very active
14:55:25 development of antiviral agents, a person skilled in the
14:55:30 art would have certainly been aware of a number of
14:55:36 nucleosides, nonnucleosides and protease inhibitors by
14:55:42 May of 1992.
14:55:43 Q Would they have been aware of them by
14:55:47 identification or would they have been aware that
14:55:49 they -- that those compounds that you just identified
14:55:52 have clinical value in treating patients?
14:55:54 A They would have been aware of them either
14:56:01 because of use, in the case of the several that were
14:56:04 available by prescription, or by their preclinical and
14:56:11 clinical development which varied among the drugs at the
14:56:15 time, and by the level of involvement of the person
14:56:22 skilled in the art in clinical investigation, which
14:56:24 again, is part of my definition of a person skilled in
14:56:26 the art.
14:56:27 Q Is it -- are the results of clinical trials
14:56:35 publicly known to those of skill in the art before the
14:56:39 data is presented in papers or conferences?
14:56:47 A The data is typically made available to an

14:56:53 investigator in a specific clinical trial as that trial
14:56:58 is being analyzed, which can happen slightly before
14:57:04 public presentation, but in HIV, the pace of development
14:57:10 was such that most developments were available publicly
14:57:17 in the form of scientific presentations or publications.
14:57:28 Q You will agree that HAART therapies were not
14:57:31 available to those of skill in the art as of May 1992?
14:57:36 MS. RHYU: Objection. Compound and vague.
14:57:39 THE WITNESS: I think we addressed that
14:57:41 earlier, and said that the availability of the elements
14:57:50 of that acronym, especially the nonnucleosides and
14:57:55 proteases, were entering clinical development in 1990
14:58:01 through 1992, and may have, in fact, been combined in
14:58:06 ways that would be called HAART, but the term hadn't
14:58:13 really been coined yet.
14:58:45 (Deposition Exhibit 17 marked.)
14:58:45 MR. CANNON: Marking, as Exhibit 17, a document
14:58:52 entitled "Joint Claim Construction and Prehearing
14:58:54 Statement Under Patent Local Rule 4-3."
14:58:58 Q Have you seen this document before,
14:59:04 Dr. Volberding?
14:59:05 A Yes. I don't recall whether I've seen it in
14:59:07 exactly this format or not, but yes, I've seen this
14:59:13 document before.
14:59:14 Q Let's take a look at Exhibit G. Exhibit G

14:59:26 mentions a Dr. John G. Bartlett. Do you see that?
14:59:30 A I do.
14:59:30 Q Do you know Dr. Bartlett?
14:59:32 A Yes, I do.
14:59:32 Q Can you tell me who he is?
14:59:34 A He's a physician at Johns Hopkins University.
14:59:39 Q Is he a well-respected physician?
14:59:40 A Yes, he is.
14:59:41 Q Do you have a professional relationship with
14:59:43 him?
14:59:43 A Yes, I do.
14:59:44 Q Page 3 of the -- of this document references
15:00:00 someone called Jeffrey D. Lifson. Do you see that?
15:00:04 A I do see that.
15:00:05 Q Do you know who Dr. Lifson is?
15:00:07 A Yes, I do.
15:00:08 Q Can you tell me who he is?
15:00:09 A I don't know Jeff well anymore, so I would rely
15:00:18 on the statement as to his current position, but he's a
15:00:22 person who's been involved in HIV research in the past.
15:00:25 Q Is he a respected scientist?
15:00:28 A Yes, I believe so.
15:00:29 Q Before today, did you have the opportunity to
15:00:37 read the section beginning in the middle of page 3 and
15:00:42 over to page 4 under Jeffrey D. Lifson's name, which

15:00:46 purports to show proposed testimony and opinions from
15:00:50 Dr. Lifson?
15:00:51 A Yes, I read this.
15:00:52 Q Do you have any opinions about the statements
15:00:57 or proposed testimony set forth for Dr. Lifson here?
15:01:00 MS. RHYU: Objection. Compound.
15:01:02 THE WITNESS: If you could give me just a
15:01:04 minute to --
15:01:04 BY MR. CANNON:
15:01:04 Q Sure.
15:01:05 A -- refresh my memory of this document.
15:01:07 Q Sure. Take your time.
15:01:37 A Okay, your question again?
15:01:41 Q Do you disagree with any of the proposed
15:01:44 testimony of Dr. Lifson?
15:01:45 MS. RHYU: Objection. Outside the scope.
15:01:47 THE WITNESS: It's not --
15:01:49 MS. RHYU: And compound. If you want to ask
15:01:51 him about specific statements one at a time, go for it.
15:01:58 THE WITNESS: In general, it's not an area that
15:02:00 I would be expected to address in any real detail.
15:02:07 BY MR. CANNON:
15:02:14 Q Following up counsel's objection, to make sure
15:02:16 that -- make sure that we're on the same page, the
15:02:20 bottom of page 3 of this document states, "He" -- and

15:39:03 scope, and misleading.
15:39:06 THE WITNESS: And I'm really sorry, maybe it's
15:39:10 the time of day, but could I hear the question one more
15:39:13 time?
15:39:13 MR. CANNON: Of course. Of course. As many
15:39:15 times as you need.
15:39:16 Please read it back.
15:39:34 (Record read.)
15:39:34 MS. RHYU: And I have to object that this is
15:39:35 very misleading. If you want to aim him toward any
15:39:40 results in there that relates to monitoring of
15:39:45 antiretroviral therapy, please do that, or give him the
15:39:47 opportunity to read the entire article, but this is
15:39:50 really unfair to throw that article in front of the
15:39:53 witness and ask him to answer that question when he
15:39:55 hasn't considered it prior to this deposition.
15:40:00 THE WITNESS: So the article in Exhibit 13
15:40:06 summarizes the results of some of the development of
15:40:11 viral load quantitation and patients with HIV infection.
15:40:16 BY MR. CANNON:
15:40:16 Q Right. And you considered this article
15:40:22 important when you read it back in 1991; correct?
15:40:25 A I think this is an important article.
15:40:30 MR. CANNON: No further questions.
15:40:34 MS. RHYU: Thank you.

15:40:35 MR. CANNON: Thanks very much for your time, I
15:40:38 appreciate it.
15:40:38 THE WITNESS: Oh, yeah.
15:40:40 THE VIDEOGRAPHER: This concludes today's
15:40:42 deposition of Dr. Paul Volberding. The number of media
15:40:50 used was three. We're going off the record at 3:40 p.m.
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I, PAUL VOLBERDING, M.D., do hereby declare under penalty of perjury that I have read the foregoing transcript; that I have made any corrections as appear noted, in ink, initialed by me, or attached hereto; that my testimony as contained herein, as corrected, is true and correct.

EXECUTED this _____ day of _____, 20___, at _____, _____.
(City) (State)

_____
PAUL VOLBERDING, M.D.

I, the undersigned, a Certified Shorthand Reporter of the State of California, do hereby certify:

That the foregoing proceedings were taken before me at the time and place herein set forth; that any witnesses in the foregoing proceedings, prior to testifying, were duly sworn; that a record of the proceedings was made by me using machine shorthand which was thereafter transcribed under my direction; that the foregoing transcript is a true record of the testimony given.

Further, that if the foregoing pertains to the original transcript of a deposition in a Federal Case, before completion of the proceedings, review of the transcript [X] was [ ] was not requested.

I further certify I am neither financially interested in the action nor a relative or employee of any attorney or party to this action.

IN WITNESS WHEREOF, I have this date subscribed my name.

DATED: _____

_____
GINA GLANTZ
CSR No. 9795