EXHIBIT 1

UNITED STATES DISTRICT COURT

DISTRICT OF MASSACHUSETTS

Civil Action No. 05-12237 WGY

AMGEN, INC.,	) DEPOSITION OF:
	)DR. SVEN-MICHAEL CORDS
	)
Plaintiff,	)
	)
vs.	) **CONFIDENTIAL**
	)
	)
F. HOFFMANN-LA ROCHE LTD., a Swiss Company, ROCHE DIAGNOSTICS GmbH, a German Company, and HOFFMANN-LA ROCHE, INC., A New Jersey Corporation,	)
	)
	)
	)
	)
	)
Defendants.	)

TRANSCRIPT of the stenographic notes of the proceedings in the above-entitled matter, as taken by and before LISA FORLANO, RMR, CRR, CSR, CLNR, Notary Public, held at the offices of Duane, Morris, 1540 Broadway, New York, New York, on Wednesday, May 30, 2007, commencing at 9:03 a.m.

(This transcript has been designated CONFIDENTIAL as per Section 5(c) of the Amended Protective Order. Please treat the entire transcript in accordance with the Protective Order.)

rephrase the question?
BY MR. NIELSEN:
Q You had a protocol that you followed in performing your bioassay, correct?
A Yes.
Q And that protocol didn't include a step of normalizing data, did it?
A No, the whole calculation was not part of the protocol.
Q The calculation of normalization?
A That's correct.
Q You normalized the data simply for purposes of generating Figure 3 to appear in your expert report, is that right?
A I'm sorry, can you repeat?
Q Well, you explained just a moment ago --
A Yeah.
Q -- that normalizing the data was not part of your protocol, right?
A Correct.
Q Okay. But you did normalize the data for purposes of generating Figure 3, right?
A That's correct.
Q And was the purpose of normalizing the

A Yes, it was my understanding.
Q You did not write Paragraph 10 of your report, correct?
A As I said, it was prepared by the attorneys of Roche.
Q The entire report?
A Yes.
Q Dr. Cords, if you will, please provide us today with the tutorial that you think you might give at trial in this case on the general aspects of the Normomouse bioassay.
A Yes. The general aspect of this protocol or the general aspect when you normally test erythropoietic stimulating agents for quality control purposes, for example?
Q Well, I want both out of you. I want to hear from you today everything that you think you might possibly tell the Court later on in this case as part of a tutorial. So let's start first with the protocol in this case.
A Yes. Maybe I start a little bit more general. It might be easier and then go into the detail.
Q Fair enough.
A The normocythaemic assay is a part of

the European Pharmacopoeia, so it's a validated test to test the activity of erythropoietic stimulating agents. In this test, you compare one or two samples of one distinct substance against its own standard. The difference to the protocol of this study is that instead of using one dosage, you use three dosages and instead of sampling four samples over a time period, you sample after four days after injection of the mice.

The activity is calculated by comparison, the reticulocyte response of the samples in comparison to the standard and it is analyzed by the so-called parallel line assay which compares parallelity and linearity and dosage effectiveness.

Instead of this in this protocol, we measured over different time points the samples using one dosage and comparing different substances and no deeper statistical analytical measurement was made.

Q Is there anything else that you think will be part of your tutorial in this case?

MR. LEEMAN: Objection.

BY MR. NIELSEN:

Q Let me ask you a better question.

In addition to what you just explained

to me, do you believe there are any other aspects or parts of a tutorial which you might explain later on at trial in this case?

MR. LEEMAN: Objection.

THE WITNESS: It's possible to go in very detail how the samples were diluted, for example, and then applicated to the mice, how the receiving of the blood of each animal was performed and then the calculation by flow cytometry of the reticulocytes.

BY MR. NIELSEN:

Q Do you think you may go into such detail at trial?

MR. LEEMAN: Objection.

THE WITNESS: I can do this. Of course this is in some -- to some extent privileged information, just keeping the way we are performing our assay in-house.

BY MR. NIELSEN:

Q How is it privileged?

A It's just a question of know how.

Q The know how of Bioassay GmbH?

A Yes, that's right.

Q And I assume that you don't plan on discussing the know how or the confidential know how

BY MR. NIELSEN:

Q I believe earlier, Dr. Cords, you said something to the effect, and please correct me if I'm wrong, I'm trying to be accurate here, that the difference between the protocol, the typical protocol for a Normomouse bioassay and the study you performed was that instead of one dosage, there were three dosages and instead of four samples --

A Four times.

Q Okay. Instead of testing at four times, there's only a test at one time?

A One time after four days, yes.

Q Okay. Which goes with the Normomouse -- strike that.

Which goes with the standard Normomouse bioassay and which goes with the version that you performed in this case?

A The standard Normomouse assay, we use three different dosages at one time point measurement after four days after injection.

Q And in the modified Normomouse bioassay that you performed in this case?

A You had four times measurements with only one dosage.

Q You never performed this modified

mono-PEG-EPO were samples that were assayed in a Normomouse assay that generated the data shown in this document. Okay?

A I just recognize it, yes.

Q Okay. Let's also assume that all other parameters of the Normomouse bioassay that was performed that yielded these results were done in a manner consistent with the bioassay which you performed in this case, okay?

A You assume that these both results are consistent?

Q Not that the results are consistent, but I'm asking you to assume for purposes of looking at Cords Deposition Exhibit 3 that the other parameters of the Normomouse bioassay that was applied to yield these results were the same or comparable to the parameters of your bioassay.

A Yes. Apart from the parameter of the time collection, it seems that the four groups have the same parameters.

Q Your assay didn't measure reticulocyte formation at 144 hours, correct?

A Correct.

Q Why not?

A Sorry?

Q Why not?
A Simply because we were not asked.
Q Roche asked you -- strike that.
The attorneys for Roche asked you to conduct a bioassay that measured reticulocyte formation through an ending at 120 hours, is that correct?
A Yes. The end point was 120 hours.
Q And that's what the attorneys for Roche instructed you to do, right?
A Yes. It was included in the protocol.
Q Did the attorneys for Roche or Roche itself send you a written protocol for the bioassay in this case?
A The protocol was sent by the attorneys.
Q When did they send it to you?
A It was at the end of March.
Q Do you remember who sent it?
A I'm not absolute sure. It could be Mr. Jungermann.
Q I'm sorry, what was the first name?
A The first name is Sebastian.
Q Is Mr. Jungermann an attorney for Roche?
A He's located in Frankfurt.

Q Does he work for Roche?
A I don't know, but he's an attorney for Kaye Scholer.
Q Do you recall roughly how many pages the protocol was that was sent to you?
A The protocol, I'm not absolute sure, but two sides I would suggest.
Q Two pages?
A Two pages, yes.
Q Do you know if that protocol has been produced to Amgen in this case?
MR. LEEMAN: Objection.
THE WITNESS: Can you specify or rephrase the question?
BY MR. NIELSEN:
Q Do you know if the protocol which you just referred to or a copy of it was produced or given to Amgen or Amgen attorneys in this case?
MR. LEEMAN: Objection.
THE WITNESS: I have no -- I don't know it, no.
BY MR. NIELSEN:
Q You don't have any knowledge of whether any particular documents were given to Amgen in this case, do you?

in no other respect and, therefore, and maybe without the hand writing, so this document arguably has more information because of the handwriting than the -- any non-identical equivalent that might be out there without the handwriting, so I expect that there won't be need for additional questioning, if there is such an equivalent out there.

MR. NIELSEN: And you haven't seen this additional document, have you?

MR. LEEMAN: I'm unaware of the other document or its where abouts.

MR. NIELSEN: Okay. Well, we can't agree to waive any rights we have to resume the deposition.

MR. LEEMAN: I understand your position, Matt.

BY MR. NIELSEN:

Q Dr. Cords, counsel for Roche just provided an explanation of what he believes to be the, you know, facts and circumstances surrounding the non-identical version of this document which you referred to, but I haven't heard from you yet as to what you think about what he said. I'm a little surprised, I have to admit, that now it seems like things have changed, so do you now recognize the

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document bearing Bates numbers 8890792 through 93?

A Yes. The emphasis was that I've never seen this particular document with the Roche emblem and the handwriting and -- except from the head of this first page, the protocol was identical of which was sent to us.

Q And when you say the head of the page, can you please make it clear for the record, beginning where and ending where you're referring to?

A From my remembering the protocol starts with the sentence protocol of sample preparation for the comparison study for epoetin beta and MIRCERA.

Q What was it that jogged your memory, if you will, as to as to you having seen that remaining portion of this document before?

MR. LEEMAN: Objection.

THE WITNESS: I didn't understand it.

BY MR. NIELSEN:

Q Why is it that you're coming back now after having been off the record for a substantial amount of time, I believe with counsel for Roche, and telling me that now there are parts of this document which look familiar to you?

A Yes, but the first question you rise is

role?

A No, that's all.

Q What other people -- pardon me, strike that.

What other individuals at Bioassay GmbH had a role in the bioassay that was performed in this case other than yourself?

A I have my predecessor who is also my backup and he's also our scientific advisor.

Q And his name is?

A Professor Sponer.

Q Can you spell that, please?

A S-P-O-N-E-R.

Q Were there any other individuals who had a role in the bioassay performed in this case?

A The lab head as already mentioned, Eckart Pahlke.

Q I'm sorry, what was the name?

A Pahlke.

Q Okay. Anyone else?

A And a technician and a second technician.

Q What was that technician's name, the first technician?

A I know that Mrs. Hach, H-A-C-H, was

involved and a second, I cannot remember. I have to look at the protocols.

Q Did you observe each of the procedures or measurements that were a part of the bioassay that your company performed?

A No, I did not see the experiment.

Q If I could direct your attention to Exhibit 2 to your expert report, Doctor, your publication list. Are there any publications which you're an author or co-author of regarding work with erythropoietin?

A No, I'm not.

Q Any publications which you're an author or co-author of involving experiments with any erythropoietic stimulating agent?

A No.

Q Are there any publications which you're listed as an author or co-author on which involve experiments with the Normomouse bioassay?

A No.

Q And I take it the answer would be the same for a modified Normomouse bioassay?

A That's correct.

Q If I could direct your attention to Paragraph 4 of your expert report.

Do you see the last sentence which says: "I have tested approximately 1,000 samples, measuring the biological activity of erythropoietin samples in the parallel line assay according to the European Pharmacopoeia."?

A Yeah, that's correct.

Q What biological activity of erythropoietin have you measured prior to this case?

A It's a standard protocol, as I already mentioned, as part of the quality control of these agents to confirm the biological activity.

Q Have those tests been efforts to determine the potency of a sample?

A Yes, correct, it's a potency assay.

Q Than was that done by measuring reticulocytes?

A That's correct, yes.

Q Is there any other biological activity that -- of erythropoietin that that sentence is referring to or is that it, what you just said?

A That's what we do in our lab.

Q Your lab measures the potency of erythropoietin samples?

A That's correct, just by the normocythaemic mouse assay.

Q If I could direct your attention to Paragraph 15, Dr. Cords.

Please take as much time as you'd like to look at that paragraph, but my question to you is are the assays that you refer to in Paragraph 15 the potency assays that you were referring to a moment ago?

A You asked me whether these assay that I mentioned here are referring to the potency assay?

Q Yes.

A Yes, that's correct.

Q And just so the record is clear, here is Paragraph 15 of your report, correct?

A Yes.

Q Forgive me if we've covered this earlier, but is it correct that prior to your work in this case, you had not previously had experience with a modified version of the Normomouse bioassay?

A That's correct, yes.

Q And is it also correct that prior to your work in this case, your company, Bioassay GmbH, had not previously had experience with a modified Normomouse bioassay?

MR. LEEMAN: Objection.

THE WITNESS: That's hard for me to

protein content.

Q That wasn't something that was performed by you or your company?

A No.

Q If you could move on to pages three and four of Cords Exhibit 11. I believe counsel earlier characterized those two pages as essentially identical or virtually identical to documents that we've already looked at today.

Do you agree with that?

A Yes, I do.

Q Counsel for Roche also referred to there potentially being something additionally in this document regarding modifications that were made to the standard Normomouse protocol, is that correct?

MR. LEEMAN: Objection.

THE WITNESS: I don't think so. No, I don't think so.

BY MR. NIELSEN:

Q Is it your testimony that Cords Exhibit 11 doesn't -- strike that.

Is it your testimony that pages three and four of Cords Exhibit 11 don't provide any additional comment about any modifications to the

standard Normomouse protocol?

A Yes, as already stated --

MR. LEEMAN: Objection.

THE WITNESS: -- this is true. Apart from number one on the third page, examples to be included in the study you can see or you can conclude that it is not the standard protocol.

BY MR. NIELSEN:

Q There are no other comments on pages three and four of this document regarding any modifications to be made to the standard Normomouse protocol?

MR. LEEMAN: Objection.

THE WITNESS: They're reflecting all kinds we are not responsible for. So it's hardly to say that we can make any commands on it if this is the same procedure as is done in the standard protocol or not.

BY MR. NIELSEN:

Q Is there anything else in Cords Exhibit 11, other than what we've talked about already, that relates to any actual or potential modifications for a standard Normomouse bioassay?

A Yes, it's on the page two, the last sentence, reticulocyte counting after two, three,

four and five days, five mice per group each.

Q Is there anything else in this document about any potential or actual modifications to the standard assay?

A No.

Q If you take a look at Page 4 under 2.4, Analytics. See where it says: "Normomouse bioassay, (see memo from Wolf Pahlke, P-A-H-L-K-E)"

Do you see that, Dr. Cords?

A Yes, I see it.

Q Was there a memo from Wolf Pahlke regarding the Normomouse bioassay that was ever considered by you in this case?

A No. As already stated, we did not receive any memo.

Q What is this referring to, then?

A That's -- I can't judge about it.

Q Is it your testimony, Dr. Cords, that Cords Exhibit 11 is the protocol that was sent to you by Kaye Scholer which you were to follow in performing the assay that was conducted in this case?

A Yes, that's correct.

Q Maybe I'm missing something, but it just doesn't seem to me that there is much in here

about the conditions to perform the Normomouse bioassay, so how did you know the parameters of the assay?

A What we need for the dilution is the protein concentration. It's given. What we need to know how much we have to inject is given on the second page, this 100-milligram per mouse. All we have to evaluate then is the dilution protocol. And the rest is I think quite clear. We have to count reticulocytes after two, three, four and five days.

Q Did you follow the protocol that is provided in Cords Exhibit 11?

A Yes, we did.

Q In following the protocol, you ignored the reference on Page 4 to a memo from Wolf Pahlke?

MR. LEEMAN: Objection.

THE WITNESS: This memo was for us absolutely not relevant because we had all the information on the first two pages.

BY MR. NIELSEN:

Q But you don't know -- well, do you know what the subject of that memo is about?

A No, I don't.

Q Cords Exhibit 14 -- strike that.

Cords Exhibit 11 does not say anything

analyzes on the samples.

Q So you don't know, Dr. Cords, whether the samples were still in the same condition when you began to assay them as they were when you received them, is that correct?

A It's out of my scope to judge about this. I just can tell you the way -- the way we handled the samples. Analytical parts we cannot conclude.

Q If you can go to Page 4 of Cords Exhibit 11 and go to the second to the last bullet point -- I'm sorry, third to the last under risks/issues. Do you see where it says: "The experiment has not been performed since 1999, there is no possibility for training and test experiments (only one shot!)."

Do you see that, Dr. Cords?

A Yes, I see this.

Q You didn't receive any training for performing the modified Normomouse bioassay that you performed in this case, is that correct?

A We did not received any training because all our staff members are well trained with Normomouse, the standard of Normomouse assay, and especially the handling is exactly the same.

Q No one had received -- strike that.
No one at your company received any special training for the -- strike that again.
No one at your company received any special training for the modified Normomouse bioassay that was actually performed in this case, though, is that correct?
A That's correct.
MR. NIELSEN: Subject to my comments earlier on the record, we have no further questions at this time. That said, we do reserve our rights to resume the deposition and continue it and we consider it to still be an open deposition, but at this time, considering the circumstances that we're in, we have no further questions.
MR. LEEMAN: Okay, Matt, we obviously disagree on that. We consider the deposition to be at an end or soon to be, but let me ask a few questions myself.
BY MR. LEEMAN:
Q Did you receive a draft of your expert report before you signed it?
A Yes.
Q Did you have a chance to make some edits for purposes of accuracy?

J U R A T

I, DR. SVEN-MICHAEL CORDS, the witness herein, the foregoing testimony of the pages of this deposition, do hereby certify it to be a true and correct transcript, subject to the corrections, if any, shown on the attached page.

_____

DR.SVEN-MICHAEL CORDS

Subscribed and Sworn to before me
this _____ day of 2007.

_____

Notary Public

C E R T I F I C A T I O N

I, LISA FORLANO, a Certified Realtime Reporter, Certified Court Reporter and Notary Public, do hereby certify that I reported the deposition in the above-captioned matter, that the said witness was duly sworn by me; that the foregoing is a true and correct transcript of the stenographic notes of testimony taken by me in the above-captioned matters.

I further certify that I am not an attorney or counsel for any of the parties, not a relative or employee of any attorney or counsel connected with the action, nor financially interested in the action.

_____

LISA FORLANO, CRR, CCR #XI01143

DATED: May 31, 2007