## **EXHIBIT**

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IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MASSACHUSETTS

9.4.11

•	
AMGEN, INC.	
Plaintiff,	Civil Action
v. (	No. 87-2617-Y
CHUGAI PHARMACEUTICAL CO., LTD.,) AND GENETICS INSTITUTE, INC.,	(Magistrate Saris)
Defendants. )	
,	

Designated Deposition Transcript of Takaji Miyake

COPY

CONFIDENTIAL - SUBJECT TO ITC PROTECTIVE ORDER

IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MASSACHUSETTS

AMGEN INC.,

Plaintiff,

v.

CHUGAI PHARMACEUTICAL COMPANY, LTD., and GENETICS INSTITUTE, INC.,

Defendants.

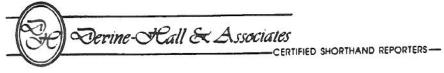
NO. Civil Action 87-2617-Y

## DEPOSITION OF DR. TAKAJI MIYAKE

Thursday, October 13, 1988 Friday, October 14, 1988 Santa Barbara, California

REPORTED BY: SUZANNE GUIMOND CSR No. 7465

CERTIFIED COPY



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associated with it.

7!

Q In this letter to Mr. Smurgil, you say that your erythropoietin experiment will begin around the beginning of September 1982. What experiment was that? Was that an attempt to purify erythropoietin that you're referring to?

A We did not have the facilities with which to do purification. And we did not have sufficient staffing.

MR. O'TOOLE: I ask the reporter to mark as Dx 8/6

Plaintiff's Exhibit 1205 a document bearing production No. 15076. I don't think it is necessary to ask you questions on this, Doctor.

Dx 98 3

I ask the reporter to mark as Plaintiff's Exhibit 1206 a document bearing production

No. 15074.

Looking at the first paragraph of  $0 \times 983$  this letter, 1206, Dr. Miyake, is it true that at this time in the fall of 1982 you were interested in other hematopoietic hormones, but Genetics Institute was interested in EPO?

A Yes, I believe so.

Q Between the fall of 1982 and the fall of 1983, there seems to be a hiatus in activity involving EPO, as far as you and

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Genetics Institute are concerned. Can you tell 2: me what caused that hiatus?

I was very busy back then, but I can't remember with any clarity any other reason. If I were to look back into my lab notes I might be able to tell you a little more. Granulocyte and macrophage colony stimulating factors, that and granulopoietin, and probably -- I think it's granulopoietin was the stimulating factor. think, if I remember correctly. I was very busy with that kind of research.

Would you look at Plaintiff's Exhibit 1037 next. If you look at the last paragraph on the first page, you'll see that Dr. Yang is asking you for a sample of pure EPO. And if you'll turn to the next page of the letter, he refers to a discussion which he had with you. He says that you said that in your preliminary purification trials, you may already have some EPO samples with fairly high purity. Did you say that to Dr. Yang?

Now it was in June of '83 that I got the grant, and the research work started in August of '83. And I think maybe at this point I had gotten some.

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253

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A
                 When you say this work --
 2
                 The in vitro assay.
 3
                 Yes, that is correct.
          A
 4
                 Did you combine fractions one
 5
    through six on page 84 of your notebook and send
    a portion of the material to G.I.?
 7
          A
                Combined?
 8
          Q
                 Yes.
 9
                 I have no recollection of such.
10
                Let me see if I can refresh your
   recollection. Look at Plaintiff's Exhibit 1039,
11
12
   which is Dr. Hewick's laboratory notebook at
13 Genetics Institute, and to page -- do you have
14 it? You'll see on the top of that page a
15 reference to EPO from Miyake. It says, "seven
16 milliliters, total A.U. 0.360." Did you provide
17
   information to Genetics Institute with respect to
18
   the A.U. value on material that you provided to
19
   Genetics Institute in the spring of 1984?
                A.U. of what?
20
         A
          THE INTERPRETER: Excuse me, did you say
21
   "A.U. value"?
22
23
         MR. O'TOOLE: To the A.U. value.
24
          THE WITNESS: At that time I was in Japan
25 in April. At about that time, it is true that
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much was going on regarding the negotiations for
    erythropoietin with G.I. But the negotiations
    were not being conducted prior to my departure
    for Japan. It was in the end of April that I
    called Dr. Shimizu and told her to send this to
    G.I.
          MR. RICHTER: I need about one minute
                 (Brief recess-)
 9
                 (Record read)
10
          MR. O'TOOLE:
                        I ask the reporter to mark as 673
    Plaintiff's Exhibit 1479 a document bearing
11
12
    G.I. production No. 32230.
13
                 When materials were sent from your
14
    laboratory to Genetics Institute in 1984, were
15
    they labeled at Wright State in any way?
16
          A
                 Samples of what?
17
          0
                 Samples of the EPO material.
18
                 Which one of these are you talking
19
    about?
20
                 I'm not talking about any of the
   materials on Exhibit 1479 right now, but just
21
22
   generally.
23
                 It was not labeled specifically as
          A
24
   EPO.
25
        Q
                 No, but did it have a label with
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on the vials, but rather this was just simply the
    condition of the Tabels on certain vials which
    were located. As to who put the information on
    the wals, I cannot say.
    BI MA O'TOOLE
 5
 6
          Q
                Was a portion of the materials
    reported on page 84 of your notebook sent to
    Genetics Institute?
 9
          A
                 Yes.
10
                 Were the fractions combined or were
11
    only some fractions sent to Genetics Institute?
12
                 No, that was not the case. They
          A
13 were not combined. I instructed that
   fraction two be sent.
15
                 You didn't have seven milliliters of
16
   fraction two, did you, Dr. Miyake, as a result of
17
   the purification step reported on page 84 of your
18
   notebook?
19
                 I don't know whether I wrote this,
20
   but the total A.U. here is correct. If you look
21
   on page 85 and on page 86, you see the results of
22
   the SDS page.
23
          Q
                Yes.
24
                And you see there is no total A.U.
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25 which corresponds to this.