

Langer, Robert S. (Restricted Access - BLA/IND Material) 6/18/2007 8:15:00 AM

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EXHS. 1 - 8

UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS

\*\*\*\*\*

Amgen, Inc., \*

Plaintiff \*

\*

v. \* Civil Action

\* No. 05-CV-12237 WGY

F. Hoffmann-LaRoche, Ltd., \*

Roche Diagnostics GmbH, and \*

Hoffmann-LaRoche, Inc., \*

Defendants \*

\*\*\*\*\*

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BLA/IND Information

Video Deposition of Robert S. Langer, Sc.D.

Monday, June 18, 2007

McDermott Will & Emery LLP

28 State Street - 34th Floor

Boston, Massachusetts 02109

----- J. Edward Varallo, RMR, CRR -----

Registered Professional Reporter

Farmer Arsenault Brock LLC, Boston, Mass.

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1 Q. I am trying to determine whether -- Well,  
2 I think I've established it, actually, but let me  
3 just ask a clarifying question. So in forming your  
4 opinion, you did not consider whether the patents  
5 enable production of erythropoietin, did you?

6 A. Well, what I considered, I considered  
7 everything, but what I'm trying to say is -- So I  
8 considered everything that's in the patent  
9 production, everything that they talked about. The  
10 question, though, that I am specifically addressing  
11 is whether the patents gave sufficient information  
12 to enable a person of ordinary skill in the art in  
13 the '83-84 time frame, information that was  
14 sufficient to generate a PEG-modified protein having  
15 erythropoietinlike activity that is therapeutically  
16 useful with routine experimentation.

17 Q. Then you do not have an opinion on whether  
18 the patents in suit enable production of  
19 erythropoietin itself?

20 MR. SAPHIA: Recombinant erythropoietin?  
21 Recombinant?

22 MS. DENNETT: Recombinant. I'm sorry.  
23 Recombinant erythropoietin.

24 A. I didn't look at that issue, no.

25 Q. Did you look at the issue of whether any

1 of the patents in suit enable a process for  
2 preparing human erythropoietin?

3 A. Again, I think I've tried to say what I  
4 did consider. In other words, if we're talking  
5 about did they give information sufficient to  
6 generate PEG-modified protein having in vivo  
7 erythropoietinlike activity that is therapeutically  
8 useful, that's what I looked at.

9 Q. Was the scope of your analysis determined  
10 by the attorneys for Roche?

11 A. That's what they asked me to look at.  
12 That was the question that they asked me to address.

13 Q. If we could turn to paragraph 28 of your  
14 report.

15 A. 28?

16 Q. 28. And there you say that PEGylation  
17 typically refers to the covalent modification of  
18 proteins. We kind of established this before, I  
19 think. But when you talk about covalent  
20 modification, do you consider that chemical  
21 modification of the protein?

22 A. I'm not sure I understand the question.

23 Q. Well, if you covalently bond PEG to a  
24 protein, do you alter the amino acid sequence of the  
25 protein?