

## **EXHIBIT N**

1 UNITED STATES DISTRICT COURT

2 CENTRAL DISTRICT OF CALIFORNIA - WESTERN DIVISION

3 HONORABLE S. JAMES OTERO, U.S. DISTRICT JUDGE

4  
5 JUNO THERAPEUTICS, INC., et al., )

6 Plaintiffs, )

7 vs. )

8 KITE PHARMA, INC., ) 2:17-CV-7639-SJO

9 Defendant. )

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12 REPORTER'S TRANSCRIPT OF PROCEEDINGS

13 JURY TRIAL VOLUME IV

14 Los Angeles, California

15 Friday, December 6, 2019

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22 AMY DIAZ, RPR, CRR, FCRR  
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1 MR. HEINRICH: All right. PX78, 155, 156, 240 --

2 MR. WEINBERGER: 240 has an objection, Your Honor.

3 THE COURT: Okay. 240 is not in.

4 MR. HEINRICH: So we may have different lists, so

5 I'll do the rest one at a time.

6 THE COURT: So any -- so any objection to the 78,

7 155 and 156?

8 MR. WEINBERGER: No, Your Honor.

9 THE COURT: Okay. Those exhibits are received.

10 (Exhibits PX78, PX155, and PX156 received.)

11 DIRECT EXAMINATION

12 BY MR. HEINRICH:

13 Q. Good morning, Dr. Sullivan.

14 A. Good morning.

15 Q. Can you please introduce yourself to the jury.

16 A. Good morning. I am Ryan Sullivan. I work as an

17 economist. And I serve as president of Intensity.

18 Q. And why are you here?

19 A. To share my expert analysis and opinions relating to  
20 money damages that were incurred by Juno as a result of the  
21 alleged infringement.

22 Q. And have you prepared anything to help illustrate your  
23 testimony today?

24 A. Yes. I prepared a set of demonstratives.

25 Q. All right. So can you please summarize your educational

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1 background briefly?

2 A. Yes. I have a bachelor's degree, a master's degree and a  
3 Ph.D. They are all in economics and all from the University  
4 of California in San Diego.

5 Q. Did you continue working with the University of San  
6 Diego -- University of California San Diego?

7 A. Um, I did. I served as an invited member of the  
8 Economics Leadership Council for the Department of Economics  
9 at UCSD, wherein I advised the faculty at UCSD on the  
10 practice of economics and private industry.

11 Q. Have you published any work in economics or economic  
12 damages?

13 A. Yes, I have. I have a number of publications in  
14 peer-reviewed journals, including the *Journal of Finance*, the  
15 *Journal of Econometrics*, and the *International Journal of*  
16 *Forecasting*. I have also published my research in *les*  
17 *Nouvelles*, which is the journal for the Licensing Executives  
18 Society as well as other papers involving intellectual  
19 property.

20 Q. And how long have you been providing professional  
21 economic services?

22 A. Since April 1992. So it has been just over 27 years now.

23 Q. You mentioned you are president of Intensity. What is  
24 Intensity?

25 A. We are an economics and data science firm with about 20

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1 Ph.D. economists and business analysts. We work with  
2 companies to help them solve problems and strategic decision  
3 making in the marketplace.

4 Q. What were you asked to do in this case?

5 A. I was asked to provide my expert research and analysis to  
6 the Court to provide guidance in determining what the  
7 appropriate reasonable royalty would be for the use of the  
8 '190 Sadelain patent by Kite.

9 Q. And as part of that analysis, do you have to make any  
10 assumptions in connection with that?

11 A. Yes. The standard assumption for calculating damages is  
12 to assume that the patent is both valid and infringed.

13 Q. Now, what materials have you considered in forming your  
14 opinions? And let's go to slide 3.

15 A. A great number of documents and data and information, so  
16 this includes documents that were produced by the companies  
17 to this litigation as well as filings that they have made,  
18 for example, with the Securities and Exchange Commission. I  
19 have looked at financial data on sales and profitability,  
20 market research reports and analysis that has been performed.

21 I've also reviewed extensive testimony from  
22 witnesses within the litigation. I've held interviews with  
23 other experts. And I have also analyzed and utilized company  
24 financial models.

25 Q. Now, what is a reasonable royalty?

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1 A. It is a form of damages in patent cases. As an  
2 economist, I perform my work in the context of the law. And  
3 the statute provides for damages adequate to compensate for  
4 the infringement but in no event less than a reasonable  
5 royalty.

6 Q. And how do you evaluate a reasonable royalty?

7 A. Yeah. A standard way to do so is through what is known  
8 as a hypothetical negotiation. This would be a negotiation  
9 that would happen between the licensor, parties with a  
10 patent, and a licensee, parties that are seeking to obtain a  
11 license or permission to use that patent. It's hypothetical  
12 in a couple of ways.

13 One, the negotiation did not actually happen. So we  
14 have to reconstruct what that negotiation would look like.  
15 Also, we assume that the patent is valid and infringed, which  
16 is different than a lot of real world negotiations. And we  
17 also look at all of the information that is available and  
18 recognize that the parties to this hypothetical negotiation  
19 would have access to the whole collection of information.

20 Q. Now, who would have participated in the hypothetical  
21 negotiation that you analyzed?

22 A. Well, in the hypothetical negotiation in this case, that  
23 would have occurred on October 18th, 2017, or right before  
24 that. And that's the date upon which Kite received FDA  
25 approval to begin selling YESCARTA.

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1 And so at that point in time, Kite Pharma would be  
2 the entity that would be seeking a license. And just two  
3 weeks prior to that point in time, they had been acquired by  
4 Gilead. So Gilead would also be very interested in the  
5 outcome of the negotiation as they would be seeking and  
6 wanting to launch YESCARTA into the marketplace.

7 On the other side would be Memorial Sloan Kettering,  
8 Sloan Kettering, and Juno as the ones that are interested in  
9 the rights to the '190 Sadelain patent.

10 Q. Now, you mentioned that some of the materials you  
11 considered were company financial models. What role did they  
12 play in your hypothetical negotiation analysis?

13 A. These are Excel spreadsheets and financials that are put  
14 together by the companies in the ordinary course of business,  
15 not for purposes of this litigation, but for making business  
16 decisions, whether it be prioritizing products or evaluating  
17 acquisitions.

18 And these are really informative in this case for  
19 the hypothetical negotiation because it gives us direct  
20 insight into how the parties would be thinking at the  
21 hypothetical negotiation. In other words, what their  
22 expectations would be at that point in time.

23 Q. Are there factors that are typically considered in a  
24 reasonable royalty analysis? And this is slide 8.

25 A. Yes. About 50 years ago there was a case, very



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1 well-known case involving Georgia Pacific, and the Court  
2 there set forth 15 different factors that may be informative  
3 for determining a reasonable royalty. And I considered and  
4 evaluated all 15 of these factors in the course of my work.

5 Q. Did you find any of those factors particularly relevant  
6 to this case?

7 A. Yes, I did. In particular, factors 9, 10, and 11, those  
8 inform upon the importance of the Sadelain patent. Factors  
9 8, 12, and 13 inform upon the financial benefits to Kite of  
10 utilizing the patented technology. Factor 5 addresses the  
11 competitive relationship between Kite and Juno. And factors  
12 1 and 2 inform upon license agreements and licensing for  
13 technology.

14 Q. All right. Let's take a look at some of the evidence  
15 here.

16 MR. HEINRICH: So I would like to move into evidence  
17 a redacted version of PX72 that just includes the cover page  
18 and a paragraph on PX72.81.

19 THE COURT: Let me find it first.

20 MR. WEINBERGER: Excuse me, Your Honor. We don't  
21 have the plaintiffs' binder here. I don't have the redacted  
22 version.

23 THE COURT: I think they are trying to secure it for  
24 you.

25 MR. HEINRICH: We do have the version on our

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1 electronic equipment. Can I pull up the unobjected-to  
2 paragraph?

3 THE COURT: Why don't you confer with counsel and  
4 make sure it's agreeable.

5 MR. HEINRICH: May I approach with redacted copies?

6 THE COURT: Yes, please. If you can hand it to  
7 Mr. Cruz.

8 MR. WEINBERGER: Subject to previous objection we  
9 made about this.

10 THE COURT: Yes. The objections previously noted  
11 will remain.

12 And so Exhibit 72, is this page 1? What is it?

13 MR. HEINRICH: Page 1 and redacted page 81 on the  
14 second -- I apologize, that is double sided.

15 THE COURT: On the 72.81, the redacted, there is  
16 nothing there.

17 MR. HEINRICH: There is the one paragraph that is  
18 the paragraph that we wanted to use here.

19 THE COURT: Okay. Not on my copy, but go ahead.  
20 There is no objection.

21 BY MR. HEINRICH:

22 Q. So what is Exhibit 72, Dr. Sullivan?

23 A. This is a form 10K that was filed by Gilead with the  
24 Securities and Exchange Commission for the year ending 2017.  
25 And a form 10K is an annual report that public companies file

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1 with the Securities and Exchange Commission to provide  
2 detailed information about the company to the SEC as well as  
3 to investors and shareholders and provides detailed  
4 information regarding the company.

5 Q. And what information did you find in this exhibit  
6 regarding the value of the Sadelain patent to YESCARTA?

7 A. On page 81 there is information that I found to be very  
8 informative in this regard. So first I'll just read a  
9 relevant piece here, and then I can explain what it means.

10 So starting on the second line, "In October 2017,  
11 upon FDA approval of YESCARTA for the treatment of adult  
12 patients with relapsed or refractory DLBCL after two or more  
13 lines of systemic therapy, \$6,200 million of the purchased IP  
14 R and D was reclassified as a finite lived intangible asset."

15 Q. Can you help translate that for us?

16 A. Yes. So what this is saying is that when Gilead acquired  
17 Kite, that there was a portion of that purchase price that  
18 they identified as being the value attributable to IP R and D  
19 of YESCARTA. IP R and D is intellectual property research  
20 and development. So think of that as the technology in  
21 YESCARTA.

22 What they have done here is identified what the  
23 value is of that item for YESCARTA, and that is the  
24 \$6,200 million.

25 Q. What is \$6,200 million?

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1 A. That is an odd way of saying \$6.2 billion. Most all of  
2 the numbers in the form 10K are rather large, so they are all  
3 treated as millions. Here, it is 6,200 million. We would  
4 more likely refer to that as just over \$6 billion.

5 And the way to think about value here, somewhat of a  
6 formal or structured way of thinking about it, is that value  
7 is based upon the expectation of future profits. That is  
8 what gives an asset value. And, naturally, the further out  
9 in time into the future that one is projecting, one has to  
10 account for that in the value.

11 In other words, there is two adjustments to kind of  
12 think about here. One is that you want to have your -- you  
13 know, money today is worth more than money received a year  
14 from now or five years from now. But there is also a little  
15 bit more uncertainty associated with the future. And what  
16 the value does is it looks at what is the present value  
17 today, taking all of that into account. And that is what  
18 Gilead determined and reported as being \$6.2 billion.

19 Q. So from an economics standpoint, what is your  
20 understanding of how YESCARTA uses Dr. Sadelain's patented  
21 CAR?

22 A. As I understand it, that patented CAR is what allows  
23 YESCARTA to be a living drug with a single dose of therapy to  
24 provide the efficacy and the therapeutic value of the  
25 product.

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1 Q. Now, have you seen any evidence from Kite about the role  
2 of the Sadelain patent -- the Sadelain patented CAR in  
3 YESCARTA?

4 A. Yes, I have.

5 Q. And let's pull up our next slide.

6 And can you explain this evidence to the jury?

7 A. Yes. So this is testimony, and we heard this just a  
8 little bit earlier this morning, from Shawn Tomasello who was  
9 the former chief commercial officer at Kite, and she  
10 explained that it's fair to say that having a construct on  
11 which to base your product is an important aspect from a  
12 commercial point of view and that, without that CAR  
13 construct, there isn't anything. In other words, it's that  
14 CAR construct that is fundamental to the product and  
15 ultimately, as we'll see, it really is fundamental to all of  
16 the business for CAR-T for Kite.

17 Q. Did any of Kite's real world activities shed light on the  
18 value of the Sadelain patent to Kite at the time of the  
19 hypothetical negotiation?

20 A. Yes. There are several key items in this regard.

21 The first is that Kite attempted historically to  
22 obtain a license to the '190 Sadelain patent, but they were  
23 unable to do so. They did not secure a license that would  
24 give them permission to use the '190 patent.

25 Subsequent to that point in time, they then sought

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1 to invalidate the patent through what is known as an inter  
2 partes review process. That attempt to invalidate the patent  
3 was --

4 MR. WEINBERGER: Objection, Your Honor, I think this  
5 is far afield.

6 THE COURT: The objection is -- ask your next  
7 question. The objection is overruled.

8 BY MR. HEINRICH:

9 Q. Did you see any evidence that Kite tried anything else  
10 with respect to the Sadelain patent?

11 A. Yes. There were multiple attempts by Kite to develop  
12 alternative constructs. There is the Kite 585 construct,  
13 which was an internally-developed construct. But ultimately  
14 they did not continue with that as they found it was not  
15 efficacious.

16 There is another construct referred to as HU19.  
17 That construct they brought through to phase I clinical  
18 trials and then decided not to pursue that beyond phase I.

19 So there were two other attempts, and neither one  
20 turned out to be successful for them and are focused in their  
21 CAR-T program solely on the Sadelain construct.

22 Q. Well, do you have an understanding of the extent to which  
23 Kite's CAR-T program pipeline uses the Sadelain patented CAR?

24 A. Yes. The ZUMA-1 trial, which resulted in YESCARTA for 3L  
25 DLBCL is one of the trials, and that's what we were

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1 discussing earlier that was valued by Gilead at \$6.2 billion.

2 But there are at least 10 other trials that are in  
3 the pipeline for Kite that also are all using this very same  
4 Sadelain CAR construct.

5 Q. Now, are there other aspects or factors related to  
6 YESCARTA that -- or -- that are important, that you  
7 considered?

8 A. There are other factors. And there are other  
9 contributors to YESCARTA beyond just the construct itself.  
10 For example, there's manufacturing processes, and  
11 administration, and lymphodepletion. Yet, these other  
12 factors do not drive the demand for the product. Because  
13 without the CAR construct, there isn't anything to  
14 manufacture, there is no basis for lymphodepletion on a  
15 patient.

16 So it really is that the CAR construct is that which  
17 is fundamental in the driver of demand for sales of YESCARTA.

18 Q. But did you take those other factors into consideration  
19 in your analysis?

20 A. I did. And my analysis fully captures that value, and  
21 separates out the value, contribution of the '190 patent  
22 relative and separate from all of the other contributions.

23 Q. So let's turn to the relationship between Juno and Kite.  
24 How would you characterize that relationship?

25 A. Juno and Kite are and have been direct competitors, and

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1 the evidence shows that they have considered each other to be  
2 primary competitors.

3 Q. And what are some of the ways in which they have competed  
4 in the time period leading up to the hypothetical  
5 negotiation?

6 A. On the next slide, I have a list of various items. There  
7 are -- there has been competition, for example, for  
8 technology rights, and in particular with regards to rights  
9 to the '190 patent. There has also been competition with  
10 regards to funding. So obtaining investment, you know, both  
11 companies were seeking to go public and did have their IPOs  
12 right around the same time. So they have been directly  
13 competing in the space for investments.

14 Also, with respect to employees, they have competed.  
15 And competing for clinical trial sites. So the two entities  
16 have had a relationship that is directly competitive.

17 Q. Now, at the time of the hypothetical negotiation in  
18 October of 2017, was there an expectation of future  
19 competition between Juno and Kite?

20 A. Yes. All of the documents produced by the entities in  
21 these company financial models that I mentioned earlier  
22 recognize that there would be overlap in a number of  
23 different indications for the two entities, such that the  
24 competition would continue.

25 Q. Now, was there an advantage to Kite in getting a license



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1 to the Sadelain patent at the specific time of the  
2 hypothetical negotiation?

3 A. Yes. And, in fact, having a license upon launch in  
4 October 2017 provided Kite with a very significant  
5 first-mover advantage.

6 Q. Let's turn to slide 20. What is a first-mover advantage?

7 A. This is an advantage that on net results in a company  
8 that is first to providing their product into the marketplace  
9 with an advantage in terms of increased market share,  
10 increased sales, being able to develop and shape the  
11 marketplace so that there is increased physician loyalty and  
12 loyalty from treatment centers, such that there can be a much  
13 longer and entrenched advantage as a result of being first in  
14 the marketplace.

15 Q. Let's pull up Exhibit 29. It's in evidence.

16 And can you remind us what this is?

17 A. Yes. This is a presentation that provides the results of  
18 research that was conducted by Kite internally, just a bit  
19 before the hypothetical negotiation, addressing the value of  
20 a first-mover advantage.

21 Q. Let's turn to page 2. What is Kite saying here?

22 A. Here they are saying that based upon their research that  
23 they did, that on average first movers achieve a higher  
24 market share.

25 Q. And if we turn now to page 3.

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1 A. Here they are stating that based upon their research that  
2 the market share advantage of first movers at year 10 is on  
3 average 6 percentage points. And as an economist, this is  
4 really interesting, because one can think of a first mover  
5 having an advantage early on, and that perhaps that advantage  
6 would dissipate or start to diminish or go away perhaps  
7 quickly.

8 But the facts actually show that the advantage  
9 continues for a long period of time. And what they're saying  
10 here is that on average after 10 years, there is still a  
11 benefit of 6 percentage points at the market share.

12 Q. And if we can turn to page 7.

13 A. These are the conclusions of the study based upon their  
14 research that specifically to KTEC19, which is YESCARTA, that  
15 that first-mover advantage was expected to be between 5 and  
16 10 percentage points continuing after even 10 years. And  
17 that part of the reason is that the treatment centers would  
18 gravitate towards one company's offerings across indications  
19 to be able to simplify the treatment process.

20 Q. So let's pull up Exhibit 78. And while we pull that up,  
21 can you tell us whether you saw any evidence that Gilead  
22 considered that there was a first-mover advantage for  
23 YESCARTA?

24 A. Yes.

25 Q. So let's turn to page 5 of Exhibit 78. Can you explain

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1 what we see here?

2 A. Yes. So this is a document that was prepared on the day  
3 that Gilead announced to the marketplace that they are going  
4 to be acquiring Kite. And this is a document that was  
5 circulated among the top executive team at Gilead to be able  
6 to help answer questions that they might receive regarding  
7 their decision to acquire Kite.

8 And what's interesting here is there is a question  
9 of why Kite instead of Juno. And what they are asking is,  
10 why did Gilead decide to acquire Kite instead of Juno? And  
11 the response that the company put together is because of the  
12 first-mover advantage. That was the top reason that they  
13 listed.

14 Q. Did you see any other evidence from Gilead relating to a  
15 first-mover advantage and its position on that?

16 A. Yes, I did, there is what's referred to as earnings call  
17 transcripts. So for public companies, they will hold  
18 earnings calls with investors, and these calls are public.  
19 And there are transcripts made of what the executives  
20 communicate into the marketplace regarding the company and  
21 market developments.

22 MR. HEINRICH: So we move PX240 into evidence, which  
23 is a Gilead 2017 earnings call transcript.

24 THE COURT: Any objection?

25 MR. WEINBERGER: It's hearsay. It's not a Gilead

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1 document.

2 THE COURT: 240?

3 MR. HEINRICH: Yes.

4 THE COURT: And the objection is hearsay. The claim  
5 is it's not a Gilead document?

6 MR. WEINBERGER: Correct, Your Honor.

7 THE COURT: Then lay a foundation, please. Lay a  
8 foundation.

9 BY MR. HEINRICH:

10 Q. All right. Well, does the call transcript reflect  
11 expectations of the parties at the time of the hypothetical  
12 negotiation?

13 A. Yes. So during these calls, the executives and in  
14 particular here, John Milligan, the chief executive officer  
15 of Gilead, is in a public forum providing his input on the  
16 marketplace and on Gilead, in this particular instance,  
17 regarding a first-mover advantage associated with regards to  
18 Kite. And Thomson Reuters is the entity that actually  
19 transcribes the call and then makes the transcript available  
20 to all of us out in the public.

21 Q. And as a damages expert, do you rely regularly on  
22 earnings call transcripts such as this?

23 A. Yes. This is just part of our typical market research  
24 that we would perform.

25 MR. HEINRICH: With that, we --

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1 THE COURT: 240 is now received.

2 (Exhibit PX240 received.)

3 BY MR. HEINRICH:

4 Q. So if we pull up page 12. So can you tell us what -- so  
5 first, who is John Milligan?

6 A. So the president, CEO, and director of Gilead.

7 Q. And what's reported here?

8 A. He states -- he states that he thinks the first mover is  
9 very important with this area, because it allows them to  
10 develop the rapport and relationship with the different  
11 cancer centers. And so he thinks a first-mover advantage is  
12 important in this area.

13 Q. Dr. Sullivan, were you here in court yesterday for Arie  
14 Belldegrun's testimony?

15 A. Yes, I was.

16 Q. And did you hear his testimony about first mover not  
17 being important to Kite?

18 A. I did.

19 MR. WEINBERGER: Objection, mischaracterizes his  
20 testimony.

21 THE COURT: Overruled.

22 BY MR. HEINRICH:

23 Q. And what is your -- what is your opinion on that based on  
24 all of the documents that you have reviewed in this case?

25 A. I found the testimony to be odd. All of the documents,

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1 all of the analysis, all of the research all points to the  
2 fact that there is indeed a first-mover advantage.

3 While certainly there may be certain aspects that  
4 aren't as beneficial, I think it's very clear that on net,  
5 overall, this was a very significant advantage for Kite.

6 Q. Now, did you consider whether Juno would have anticipated  
7 how Kite's first-mover advantage would impact Juno's  
8 business?

9 A. Yes. Evidence demonstrates and even economics and basic  
10 common sense that when Kite has the first-mover advantage and  
11 they receive those benefits, there is a reciprocal harm to  
12 Juno from being second or being behind Kite and further  
13 behind. Because if you can even think about it, if there are  
14 two products coming to market and suppose they are very  
15 similar, one of them gets there first, gets entrenched. The  
16 second one, when they are coming in, they no longer can be  
17 equal or similar. They have to be better in order to  
18 overcome those hurdles. So it puts them at a significant  
19 disadvantage. It slows down the process, slows down the  
20 launch, and causes them to have lower market share and thus  
21 less revenue and profitability over time.

22 Q. So let's go back to the slides and talk next about your  
23 approach in evaluating reasonable royalties. At the  
24 hypothetical negotiation, what type of royalty structure  
25 would the parties agree to?

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1 A. The appropriate structure that the parties would agree to  
2 is a reasonable royalty that would have two components to it.  
3 One, an upfront payment, and two, a running royalty rate that  
4 would be applied to sales of YESCARTA.

5 The second component sometimes is casually referred  
6 to as royalties, yet it's the two components combined that  
7 provides for the total reasonable royalty.

8 Q. And why do you believe the parties would have agreed to  
9 this structure with both an upfront and a running royalty  
10 rate on sales?

11 A. There's three good reasons for this. One, nearly all of  
12 the agreements that have been entered into by Kite and by  
13 Juno have this type of structure.

14 Second, throughout the biotech industry, this  
15 structure is very common and predominates.

16 And third, it's -- I label the title here agreed  
17 license structure, and that's because both Kite's economics  
18 expert, Dr. Rao, and I, we both agree that the reasonable  
19 royalty would be of this structure and have both an upfront  
20 payment and a running royalty on sales.

21 Q. Dr. Sullivan, what methodology did you use to quantify  
22 these two components of your suggested royalty?

23 A. I used a standard approach that is referred to as the  
24 market approach. Sometimes it's also referred to as a  
25 comparable license approach.

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1 And that's wherein I identify a comparable license  
2 agreement, and then make adjustments to that to have it be  
3 consistent and reflect what would be the outcome of the  
4 hypothetical negotiation.

5 Q. Did you make adjustments to both components of this  
6 license?

7 A. Yes. Both the upfront payment and the running royalty in  
8 this case requires adjustment to be able to reflect the  
9 differences between the agreement on the one hand and the  
10 hypothetical negotiation on the other. And I'll explain that  
11 in more detail.

12 Q. Let's turn to slide 23. So how did you apply the market  
13 approach methodology?

14 A. So given all the context, the research that I did, and  
15 the analysis that I've already been discussing, I determined  
16 that the appropriate agreement to start with is the 2013  
17 exclusive license agreement between Memorial Sloan Kettering  
18 and Juno.

19 And then made adjustments to that to reflect what  
20 would actually have occurred from the hypothetical  
21 negotiation, because there's very significant differences  
22 between that agreement being entered into in 2013, and the  
23 hypothetical negotiation in 2017 with Kite.

24 Q. So what are those major differences between the Juno/MSK  
25 2013 exclusive license and the hypothetical negotiation?



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1 A. So in 2013, that agreement was between collaborators,  
2 between Sloan Kettering and Juno.

3 It was also at a time when the CAR-T marketplace was  
4 in very early stages. In contrast, the hypothetical  
5 negotiation doesn't occur until October 2017.

6 During this time, although Kite is undertaking  
7 development of YESCARTA and seeking to get it launched, that  
8 period of time, that is not considered infringement. Rather,  
9 the infringement begins in October 2017 upon FDA approval and  
10 the launch of YESCARTA.

11 At that point in time, the market is far more  
12 developed, there is a fully commercialized product that is  
13 being launched in the marketplace, and the parties to the  
14 hypothetical negotiation are primary competitors.

15 So there's significant differences between the  
16 agreement on the one hand and the hypothetical negotiation  
17 that we have to account for, yet that initial agreement from  
18 2013 between Sloan Kettering and Juno is the right place to  
19 begin, because it's for the very technology that's at issue  
20 in this case. And there really is no dispute that that's the  
21 right place to begin.

22 Again, Kite's economics expert Dr. Rao and I both  
23 agree on that point.

24 Q. Now, how do you account for the differences you just  
25 identified between the MSK/Juno 2013 agreement and the

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1 hypothetical negotiation?

2 A. I take it in two steps. And that's because there is  
3 information that helps us get a part of that difference  
4 accounted for, and then another step that addresses the full  
5 difference.

6 So you'll see on the next slide or as we progress  
7 that there was an agreement in 2013, separate agreement  
8 between St. Jude and Juno that licensed a different patent.  
9 And then as part of a settlement in 2015, Juno then licensed  
10 that patent to Novartis.

11 And so I used those two agreements to make one  
12 adjustment, but that only gets us part of the way there.  
13 Because that only gets us to 2015. That's still relatively  
14 early stage, we don't have a launched product. And secondly,  
15 that's with Novartis, not with Kite. And Novartis was a  
16 lesser competitor. And I'll be able to quantify that for  
17 you. And so I make a second adjustment to get us to Kite and  
18 Juno in 2017 at the hypothetical negotiation.

19 THE COURT: Let's take the noon recess. Please  
20 return back to the courtroom at 12:30, and we'll continue  
21 with the trial. During your absence, do not discuss the case  
22 amongst yourself or with any other person, please.

23 THE CLERK: All rise, please.

24 (Thereupon, the jury retired from the courtroom.)

25 (Thereupon, there was a lunch recess.)

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1 THE COURT: We have everyone present on *Juno vs.*  
2 *Kite*, I think everybody is present. Mr. Chu is not here.  
3 Does he intend to be here?

4 MR. HEINRICH: He does, Your Honor. Let's wait a  
5 minute.

6 THE CLERK: I'm going to line up the jury.

7 MR. DANE: Kite is all here, Your Honor.

8 THE COURT: How much additional on direct do you  
9 think you have?

10 MR. HEINRICH: I'd say a half an hour or less.

11 THE COURT: And then Mr. Weinberger, how much cross  
12 do you think you -- I'm not trying to rush you, I just want  
13 to get a feel for whether we can let the jury go a little bit  
14 earlier today.

15 MR. WEINBERGER: I would say 45 minutes to an hour.

16 THE COURT: Okay. Thank you.

17 MR. DANE: We did -- the next witness is Dr. Schuetz  
18 who does need to get on today.

19 THE COURT: Okay. So how long will -- how long is  
20 his direct?

21 MR. DANE: Mr. Lawton is doing his direct. He's not  
22 here. I think it should be on the order of 25 minutes,  
23 something like that.

24 THE CLERK: Your Honor, are we ready?

25 THE COURT: Yes.

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1 THE CLERK: Would you all rise for the jury, please.

2 (Thereupon, the jury returned to the courtroom.)

3 THE COURT: Okay. We have our jury reassembled with  
4 counsel present and the parties. We are ready to proceed,  
5 so...

6 MR. HEINRICH: Good afternoon, ladies and gentlemen.  
7 Welcome back.

8 BY MR. HEINRICH:

9 Q. Dr. Sullivan.

10 A. Thank you.

11 Q. So let's recap. You were identifying at a high level the  
12 two adjustments you make to account for differences between  
13 the MSK/Juno 2013 agreement and the Juno/Kite 2017  
14 hypothetical negotiation. So why is the hypothetical  
15 negotiation in October 2017?

16 A. That is when Kite obtained FDA approval to begin selling  
17 YESCARTA. Prior to that point in time, they were only  
18 engaging in clinical trials. And clinical trials in this  
19 space does not give rise to infringement. So companies can  
20 undertake as many clinical trials as they wish, and that  
21 would not be considered infringement. Hence, the  
22 infringement does not begin until October 18th, 2017, upon  
23 FDA approval.

24 Q. All right. So you start with the MSK/Juno 2013  
25 agreement. Let's talk about the terms of that agreement.

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1 Let's pull up Exhibit 924. All right. And let's go to page  
2 13. What royalty rate is specified in this agreement?

3 A. The agreement specifies a running royalty rate of  
4 7.25 percent payable on net sales. And this is the royalty  
5 rate that is payable by the licensee, which is Juno, as well  
6 as any sublicensee, for example, Kite, in terms of what would  
7 be payable to MSK under this agreement as it's specified.

8 Q. So if Juno were to sublicense Kite at the hypothetical  
9 negotiation for 7.25 percent, how would that royalty be  
10 divided between Juno and MSK?

11 A. All of that, all the 7.25 percent would go to MSK and  
12 Juno would receive zero.

13 Q. All right. Did you also evaluate other payment  
14 obligations that Juno made upon entering the agreement that  
15 are not tied to sales?

16 A. Yes. There are milestone success payments as well.

17 Q. All right. Let's discuss each of those. Can we pull up  
18 924, page 15, 924.15? So can you walk us through these  
19 milestone payments?

20 A. Yes. So this is section 4.6 of the agreement, and this  
21 is setting forth development milestone payments. The first  
22 one is \$50,000 for completion of a phase I trial. There is  
23 also a payment of \$300,000 for a completion of a phase III  
24 trial, and a payment of \$3 million for receiving regulatory  
25 approval. All three milestones which were achieved by Kite

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1 as of the time of the hypothetical negotiation.

2 Q. So let's maybe unpack that a little bit. At the time  
3 Juno entered this agreement with MSK, did Juno pay these  
4 amounts immediately?

5 A. No. There was a payment obligation, yet the payments  
6 were not made at that particular point in time, but rather  
7 these get triggered across time.

8 Q. And so why did you consider them in your analysis of the  
9 upfront payment obligations for your license structure?

10 A. As of the time of the hypothetical negotiation, these  
11 milestones would have already been triggered. You know, this  
12 is -- you know, the same approach that Kite's expert Dr. Rao  
13 takes in terms of looking at which milestone success payments  
14 have been triggered as of the time of the hypothetical  
15 negotiation.

16 Q. All right. So let's discuss the success payments that  
17 you mentioned. Can we pull up PX241? Which is another  
18 co-agreement between Juno and MSK. And if we turn to page  
19 23, 241.23, what do we see here?

20 A. So this is part of the agreement between MSK and Juno.  
21 And this is setting forth the success payments under that  
22 agreement. What it is showing is that the success payments  
23 are based upon increases in equity value, such that the first  
24 payment, it's showing here as \$10, but as you can see, this  
25 is in millions of dollars, so there is a payment of

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1 \$10 million when the equity value that the stock price  
2 increases by a multiple of 10. Then there is an additional  
3 \$70 million payment to get up to a total of \$80 million that  
4 the stock price increases 15-fold, and if the stock price  
5 increases 30-fold, then the entire payment is \$150 million  
6 under the success payment.

7 Q. And why did you consider these success payments as part  
8 of your upfront in your royalty calculation?

9 A. Well, for two reasons: One, they are a fundamental  
10 component of the agreement. This is, you know, a basis for  
11 why Sloan Kettering and Juno entered into this agreement.

12 Secondly, all of these payments -- similar to the  
13 milestone payments I was mentioning a moment ago, all of  
14 these payments were also triggered. So when one takes a look  
15 at the increasing value of Kite's Series A stock, that  
16 increased well over 30-fold. And --

17 MR. WEINBERGER: Objection, Your Honor.

18 THE WITNESS: -- as a result, those would be  
19 triggered.

20 THE COURT: Grounds?

21 MR. WEINBERGER: Grounds on MIL. This is stock swap  
22 expressly.

23 THE COURT: Overruled.

24 BY MR. HEINRICH:

25 Q. So in sum, how much of the upfront payment obligations

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1 not tied to sales did you include as your starting point for  
2 that component of the hypothetical license you proposed?

3 A. \$153,350,000, so that consists of the milestone payments  
4 of 3,350,000, plus the milestone success payments that are  
5 listed here of \$150 million.

6 Q. How does Kite's expert value these success payments in  
7 his analysis?

8 A. Well, it's rather interesting, because while he takes a  
9 similar approach in looking at milestone payments, he uses a  
10 different agreement. Rather than using the Memorial Sloan  
11 Kettering/Juno agreement, he uses a different agreement that  
12 is not for the patented technology.

13 Q. All right. Let's turn to the adjustments you make and  
14 getting to the details of those adjustments. If we can go to  
15 this slide, thank you, this is slide 27. How do you make  
16 your first adjustment?

17 A. The first adjustment is based upon two agreements that  
18 were entered into by Juno; one of them with St. Jude, and the  
19 other one with Novartis. And by comparing those two  
20 agreements, it allows us to make an adjustment that gets us  
21 to early 2015 with Novartis as a party to the negotiation.  
22 There's still differences at that point, but it takes us to  
23 part of the adjustment.

24 Q. Okay. So if --

25 MR. HEINRICH: So I would like to move into evidence



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1 Exhibit 401, the Juno/St. Jude agreement.

2 MR. WEINBERGER: No objection, Your Honor.

3 THE COURT: PX401 is received.

4 (Exhibit PX401 received.)

5 BY MR. HEINRICH:

6 Q. And is this Juno/St. Jude Children's Research Hospital  
7 agreement one of the agreements you considered for your first  
8 adjustment?

9 A. Yes. This is the agreement I was just referring to.

10 MR. HEINRICH: And then I'd move into evidence  
11 PX928, the Juno/Novartis settlement sublicense.

12 THE COURT: Any objection?

13 MR. WEINBERGER: No objection, Your Honor.

14 THE COURT: Thank you. Received.

15 (Exhibit PX928 received.)

16 BY MR. HEINRICH:

17 Q. And is this the second agreement you considered for your  
18 first adjustment?

19 A. Yes, it is. This is the other agreement I just referred  
20 to.

21 Q. And if we can now turn back to the slides, why don't you  
22 walk us through how you calculate this first adjustment?

23 A. So the agreement that Juno entered into with St. Jude in  
24 2013 specifies a running royalty rate of 2.5 percent.  
25 Subsequently, in 2015, Juno entered into a settlement

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1 agreement with Novartis that involved the very same patent,  
2 and the running royalty rate in that agreement is  
3 4.75 percent. So you can see that what has occurred across  
4 time, going from 2013 to early 2015, as well as the  
5 difference in a fully -- thinking about entities that are  
6 doing research versus those that are developing a CAR-T  
7 product, there's a difference overall that goes from  
8 2.5 percent up to 4.75 percent.

9 And that reflects a 90 percent increase relative to  
10 the 2.5 percent. So that provides us with effectively what  
11 is the first adjustment.

12 Q. Now, the patent at issue in these agreements, is it the  
13 same Sadelain patent we're here to discuss?

14 A. No. It's a different patent. It does relate to CAR-T  
15 constructs, but it is a different patent. And it has  
16 different attributes, and different value in terms of  
17 licensing.

18 And you can see that straight away because the  
19 royalty rate in the St. Jude agreement is at 2.5 percent,  
20 where as the royalty rate in the Memorial Sloan  
21 Kettering/Juno agreement is higher at 7.25 percent.

22 So that tells us that there's a difference in the  
23 patents that are being licensed, but it is something that  
24 allows us to look at the relative ratio or the relationship.

25 Q. All right. So you indicated that you did a second

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1 adjustment. And why did you feel the need to do a second  
2 adjustment? We're now at slide 29.

3 A. There are still fundamental differences between the  
4 agreement with Novartis in 2015 and the agreement that would  
5 result from the hypothetical negotiation in 2017 with Kite.  
6 And in particular, back in 2015, Novartis was still years  
7 away from being able to launch a product. They were in --  
8 still in development phase. There was no overlap with the  
9 lead product candidates between Juno and Novartis. The  
10 agreement is also a settlement agreement. It settles  
11 litigation. And so it was resolving uncertainty, resolving  
12 litigation costs, especially in light of the impending  
13 intellectual public -- initial public offering, the IPO for  
14 Juno.

15 And there's also considerable evidence that Novartis  
16 had a questionable commitment across time to the CAR-T space.  
17 And for all of these reasons, that's very different from  
18 what's occurring at the hypothetical negotiation, which is in  
19 2017, October of 2017, where we have Kite launching a product  
20 into the marketplace that's fully commercialized, and is the  
21 primary competitor of Juno.

22 Q. So how does -- so does Dr. Rao, Kite's expert, do some of  
23 the same type of analysis?

24 A. Well, here again, Dr. Rao and I agree that a starting  
25 point is the 2013 agreement with 7.25 percent as that rate.

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1 And we both make our first adjustment, I make a first  
2 adjustment. Dr. Rao does that, too, although he does a  
3 different approach to that adjustment so that he ultimately  
4 ends up at a royalty rate of 10.34 percent. However, he does  
5 not account for any of the differences between Novartis in  
6 2015 and Kite in 2017 as it relates to how it impacts Juno.  
7 And that's what the second adjustment accounts for.

8 Q. So does Dr. Rao stop his adjustments at the Novartis/Juno  
9 2015 settlement agreement?

10 A. Yes. That's right.

11 Q. All right. So can you first explain at a high level your  
12 adjustment number 2?

13 A. Yes. So there's two real distinctions. In 2015, we have  
14 Novartis versus at the hypothetical negotiation in 2017, we  
15 have Kite. And that -- they have different competitive  
16 effects based upon what was being expected for competition in  
17 the marketplace.

18 Second, the market had developed from 2015 to late  
19 2017. So I account for both of those items by looking at the  
20 relative competitive effects on Juno.

21 So I first look at what would have been the  
22 competitive effect on Juno in 2015 from Novartis and then I  
23 look at the competitive effect of Kite in 2017 on Juno. And  
24 I look at that relative difference.

25 Q. And so can you explain to us how you do that calculation?

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1 A. Yes. So first off, I look at the market share effects on  
2 Juno. These are based upon the financial models that were  
3 used by Juno for their business efforts, both for their  
4 product pipeline, all their business decision making, as well  
5 as for evaluating any sort of acquisition.

6 In those models, around the time of the Novartis  
7 2015 agreement, Juno expected that Novartis would ultimately  
8 have a market share effect on Juno of 4.4 percent.

9 In contrast, fast forward to 2017 around the  
10 hypothetical negotiation, at that point in time, Juno  
11 projected through their financial models that Kite would have  
12 a market share effect of 12.5 percent, a greater market share  
13 effect on Juno.

14 Q. How did you select the models that you used for this  
15 analysis?

16 A. Based upon the use of those models by Juno in the  
17 ordinary course of business, looking at the completeness of  
18 the models, validating the work that was performed, as well  
19 as looking at which models were closest in time to each of  
20 these two events, the Novartis agreement in 2015, as well as  
21 models that are closest in time to the hypothetical  
22 negotiation in October 2017.

23 MR. HEINRICH: So I move into evidence Exhibits 1247  
24 and 1248, which are summaries of the models.

25 MR. WEINBERGER: Your Honor, I don't believe they

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1 are summaries of the models, and they are not evidence. They  
2 are just demonstratives that were prepared, I think, by  
3 Dr. Sullivan.

4 MR. HEINRICH: We offer them under section 1001 as  
5 summaries of voluminous data.

6 THE COURT: 1247 and 1248, are they in the exhibit  
7 binders here?

8 MR. HEINRICH: Yes. I'm sorry. I meant to say  
9 section 1006, rather than 1001.

10 THE COURT: Lay some additional foundation.

11 BY MR. HEINRICH:

12 Q. Can you explain what Exhibit 1247 is, Dr. Sullivan?

13 A. Yes. So the financial models that I was referring to are  
14 large and complex Excel workbooks. They have many different  
15 tabs, many different tables. There is a lot that goes into  
16 these. As you heard earlier, there can be several months'  
17 worth of a team putting these together. And what I have done  
18 is I have pulled out the key information to summarize those  
19 financial models in Exhibits 1247 and 1248.

20 MR. HEINRICH: With that, we move them into evidence  
21 under Federal Rule of Evidence 1006.

22 THE COURT: Same objection?

23 MR. WEINBERGER: Yes, Your Honor, they are  
24 selective, they are not complete.

25 THE COURT: Let me just -- okay. These -- 1247 and

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1 1248 are being received into evidence. These are certain  
2 charts and summaries. Charts and summaries are only as good  
3 as the underlying evidence that supports them. You should  
4 therefore give them only such weight as you think the  
5 underlying evidence deserves. And with that, they are  
6 received.

7 (Exhibits 1247 and 1248 received.)

8 BY MR. HEINRICH:

9 Q. So how did you quantify the relative economic impact of  
10 Novartis on Juno in 2015 and Kite on Juno in 2017?

11 A. So as you can see on the next slide, that I converted  
12 those market share effects into dollar effects, looking at it  
13 on a revenue basis. And I do that by looking at this on an  
14 indication basis, converting market share into number of  
15 patients, looking at the price per therapy at the various  
16 points in time, and performing an annual revenue impact  
17 estimate.

18 And that's what you'll see here on slide 33. So  
19 that in 2015, Novartis was projected to have an annual  
20 revenue impact of \$445 million on Juno over the course of the  
21 agreement. And in contrast, in 2017, Kite was projected to  
22 have an annual revenue impact of \$1.3 billion.

23 And so there's a relative difference, a ratio of --  
24 resulting in an increase of 192 percent. In other words,  
25 the -- starting at 445 million, going up to 1.3 billion,

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1 that's a 192 percent increase, so that's the second  
2 adjustment factor that I use.

3 Q. Can you help us understand, you know, whether this makes  
4 sense at a high level?

5 MR. WEINBERGER: Objection, Your Honor.

6 THE COURT: Grounds?

7 MR. WEINBERGER: Vague.

8 THE COURT: Okay. Sustained.

9 BY MR. HEINRICH:

10 Q. So as a matter of just basic economics, would one expect  
11 or not expect to have this difference between market impacts  
12 in these two periods of time between these two competitors?

13 A. Well, it makes sense as an economist, but I do think it's  
14 common sense that back in 2015, Novartis was still years away  
15 from a launch, and they were not the primary competitor.  
16 They were seeking to launch in a different indication, versus  
17 Kite in 2017 launching right at the lead product indication  
18 for Juno, and they're actually launching the product. So you  
19 would expect there to be a larger effect in 2017 from Kite  
20 than you would from Juno -- from Novartis in 2015.

21 Q. Now, to be clear, are you doing a lost profits analysis?

22 A. No. This is not lost profits at all. This is just  
23 looking at the relative effect. And I use this relative  
24 effect, and I apply that to royalties. So there is no  
25 capture here of revenue, there is no capture of profits.



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1 It's purely looking at the relative effects. And I use that  
2 relative difference to adjust the royalties in the Sloan  
3 Kettering agreement as the basis.

4 Q. So let's talk about your calculations using these  
5 adjustments. So let's start with your royalty rate. So can  
6 you walk us through your calculation. And this is slide 34.

7 A. Yes. As noted, the 2013 agreement between Memorial Sloan  
8 Kettering and Juno specifies a running royalty rate of  
9 7.25 percent. Adjustment number 1 is adding 6.5 percent to  
10 that amount.

11 And how I get there is I take the 90 percent  
12 adjustment factor from adjustment number 1, and I multiply  
13 that by 7.25 percent, and that yields 6.5 percent. So there  
14 is an additional royalty for adjustment 1.

15 And then if we go to adjustment number 2, I take  
16 that same base of 7.25 percent, I multiply it by the  
17 adjustment factor of 192 percent, as I explained for  
18 adjustment number 2, and that provides an incremental royalty  
19 rate of 13.9 percent. And so when I add these three  
20 together, the 7.25, 6.5, and 13.9, that yields an ultimate  
21 running royalty rate of 27.6 percent.

22 Q. And of that amount, how much -- so we imagine this  
23 hypothetical sublicense between Juno and Kite. How much of  
24 that royalty rate would go to MSK?

25 A. 7.25 percent would go to MSK. And the remainder, just

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1 over 20 percent, would go to Juno.

2 Q. So how does your proposed rate compare to Kite's  
3 anticipated profit margins at the time of the hypothetical  
4 negotiation?

5 A. At the time, based upon the financial models prepared by  
6 Kite for their Project Gold, that specifies profit margins  
7 ranging from about 65 percent in the beginning going up to  
8 over 80 percent profit margins by the time that the patent  
9 would expire in 2024.

10 Q. So can we pull up Exhibit 156, and turn to page 25? If  
11 we can just highlight the gross profit margin up above.

12 And what is this document?

13 A. So this is the Project Gold report that was put together  
14 by Kite based upon their financial models that they had put  
15 in place just a bit before the hypothetical negotiation.

16 And here, as I was noting earlier, the gross profit  
17 margins range in the beginning from about 66 percent and goes  
18 up to over 80 percent by the time that the patent would  
19 expire in 2024. And in dollar terms, the gross profits  
20 during this point -- during this time would be \$8.6 billion  
21 during the life of the patent up until it expires in August  
22 of 2024.

23 Similarly, there is also a line here for operating  
24 profits that deducts other operating expenses, you know,  
25 selling expenses, executive salaries and the like. And the

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1 total during the life of the patent is 7.1 billion. So the  
2 profits that were projected were just over \$7 billion on a  
3 net operating basis.

4 Q. All right. So let's take your royalty rate and come up  
5 with the running royalty component of your damages opinion.  
6 If we can go to our next slide.

7 So what -- what are you applying your royalty rate  
8 to?

9 A. The base -- the royalty base of net sales of YESCARTA  
10 from inception in 2017 through the third quarter of this  
11 year, the third quarter of 2019. Those sales are  
12 \$604 million. And that amount of sales is not disputed in  
13 the case.

14 Q. And are those worldwide sales?

15 A. Yes, they are. It includes global sales because all of  
16 the production is performed here in the United States. So it  
17 makes sense to include worldwide sales.

18 And applying the 27.6 percent rate to the sales of  
19 \$604 million provides for running royalties of 167 million.

20 Q. All right. So we saw that you have a second component of  
21 your proposed royalty, which is an upfront component or a  
22 component not based on sales. Can you walk us through the  
23 calculation there.

24 A. Yes. The calculation is parallel to this or what I have  
25 done for the running royalty rate. So as you'll recall, the

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1 milestone success payments total \$153.35 million. That  
2 results from the 3.35 million milestones and the \$150 million  
3 success payments.

4 So I apply the two adjustments to the 153.35 million  
5 just the same. So I apply a 90 percent factor --

6 MR. WEINBERGER: Excuse me, Your Honor. Before this  
7 is published, I need to object for the record.

8 THE COURT: Go ahead.

9 MR. WEINBERGER: This is contrary to the MIL ruling  
10 regarding the relationship between the upfront payment and  
11 the revenues and profits.

12 THE COURT: Thank you.

13 THE WITNESS: So I apply the same two factors to the  
14 \$153.35 million milestone success payments. I apply a  
15 90 percent factor, and I apply a 192 percent factor. And  
16 when I do that math, just like I did for the running  
17 royalties, the total amount is \$585 million for the upfront  
18 component of the reasonable royalty.

19 BY MR. HEINRICH:

20 Q. And what does that take into account?

21 A. So that is accounting for the financial harms and  
22 benefits that are realized at the time of the hypothetical  
23 negotiation.

24 For example, right at the hypothetical negotiation,  
25 by allowing Kite to launch with the license, by providing a

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1 license, providing them with permission to launch, that  
2 provides the first mover advantage for Kite. And it also  
3 provides the reciprocal harms to Juno at that time. And  
4 those become enabled or realized at the time of the  
5 hypothetical negotiation.

6 Q. So you mentioned a few disagreements you have with  
7 Dr. Rao, Kite's damages expert. Can you summarize those for  
8 us here?

9 A. Yes. While we both start for our running royalty with  
10 the 7.25 percent, his adjustments only go up to 10.34,  
11 because he's only making a partial adjustment, taking us to  
12 Novartis in 2015.

13 And while I disagree with how he does his  
14 adjustment, that part aside, he has not accounted for any of  
15 the other differences between Novartis in 2015 and Kite in  
16 2017.

17 He also ignores the bargaining position of the  
18 parties in 2017. So at the hypothetical negotiation, it  
19 would be recognized that Kite no longer had options. They  
20 had tried to license the patent and did not have it. They  
21 had tried alternatives and design-arounds, and that did not  
22 work. And thus, at the point in time of the hypothetical  
23 negotiation, there would be a very strong bargaining position  
24 of Juno relative to Kite.

25 Q. And what are your total proposed damages in this case,

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1 sir?

2 A. So adding together the running royalty component of  
3 \$167 million to the upfront component of the reasonable  
4 royalty, which is \$585 million, those together provide a  
5 total reasonable royalty of \$752 million.

6 Q. And why do you think that that is reasonable in this  
7 case?

8 A. Well, for a number of reasons. But the technology  
9 underlying the Sadelain '190 patent is fundamental to  
10 YESCARTA, and at the hypothetical negotiation, that license  
11 enables Kite to launch into the marketplace and obtain the  
12 benefits financially of doing so.

13 MR. HEINRICH: Thank you very much, Dr. Sullivan.

14 THE COURT: Thank you.

15 Mr. Weinberger?

16 MR. WEINBERGER: If I can just have a moment to set  
17 up, please.

18 CROSS-EXAMINATION

19 BY MR. WEINBERGER:

20 Q. Good afternoon, Dr. Sullivan.

21 A. Good afternoon.

22 Q. You testified that the starting point for your analysis  
23 was the license agreement between Memorial Sloan Kettering  
24 and Juno in 2013, correct?

25 A. That is the starting agreement. My analysis really

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1 starts before then by looking at the marketplace, the role of  
2 the technology, importance of the patents -- of the patent,  
3 things of that nature. But then once I turn to the market  
4 approach, the starting point within that is indeed that  
5 agreement.

6 Q. In fact, you concluded that the only agreement in this  
7 case that could be appropriate to use as a comparable and  
8 then adjust was the Memorial Sloan Kettering agreement,  
9 correct?

10 A. That is right. The other two agreements can be used as  
11 relative amounts, but I do not think they would be  
12 appropriate as a starting point.

13 Q. There are no other comparable licenses in this case  
14 according to you, correct?

15 A. Not ones that could be reasonably and reliable adjusted  
16 to account for the differences between those agreements and  
17 the hypothetical negotiation.

18 Q. Now, you have testified that there is a set of two other  
19 agreements involving related technology that you used to  
20 establish and quantify certain adjustments, correct?

21 A. That is right, the St. Jude agreement and the Novartis  
22 settlement.

23 Q. Right. And the St. Jude agreement -- we can put up  
24 demonstrative number 1, which I have given to counsel. And  
25 these are just your calculations, so there is nothing in here

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1 that you haven't said already.

2 The St. Jude license has a royalty of 2.5 percent,  
3 correct?

4 A. That's right.

5 Q. And the Novartis license has a royalty rate of  
6 4.75 percent, correct?

7 A. That's right.

8 Q. And as we discussed, the MSK/Juno agreement has a royalty  
9 of 7.25 percent, correct?

10 A. Yes, that's right.

11 Q. And your royalty is 27.6 percent, correct?

12 A. Yes, correct.

13 Q. So that's almost four times higher than the MSKCC Juno  
14 license, right?

15 A. Almost, yes.

16 Q. And it's about six times higher than the Novartis  
17 license, correct?

18 A. Um, about that, yes.

19 Q. And it's about 11 times higher than the St. Jude license,  
20 correct?

21 A. Yes, that's right.

22 Q. And there are no other agreements that you have opined  
23 about in your report that are comparable in this field of  
24 technology, correct?

25 A. No, not in the way that I have defined and used the term



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1 comparable, that's right.

2 Q. All right. So you made two adjustments that you've  
3 testified about, and I'm just going to put up another chart  
4 summarizing the numbers on that. And again, this is not  
5 controversial. It's the same numbers that you have given the  
6 jury.

7 Could we post number 2?

8 So first you did what you called a CAR-T developer  
9 adjustment, and that got you from 7.25 to 13.78 percent,  
10 correct?

11 A. Yes, that's right.

12 Q. So you close to doubled the royalty rate in the MSKCC  
13 agreement with your first adjustment, right?

14 A. It's a 90 percent increase, that's the 90 percent factor.

15 Q. And then you made a second adjustment which you called a  
16 Kite competition adjustment, correct?

17 A. Yes, that's right. So that reflects the second  
18 adjustment, the 192 percent factor.

19 Q. And then that got you to 27.6 percent. I actually think  
20 these numbers are reversed. It says 26.7, but I think it's  
21 actually 27.6, correct?

22 A. The answer is 27.6.

23 Q. Right. So you first -- so you basically took the highest  
24 rate of the three licenses you looked at, and you basically  
25 quadrupled it, correct?

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1 A. No, that is not quite right. While in the end the  
2 numbers are that, but I also examined a great number of  
3 different license agreements, so I considered a large number,  
4 but of these three, this has the largest royalty rate.

5 Q. I'm just asking about the math. The math is that you  
6 almost quadrupled the highest license in the three that you  
7 examined closely, correct?

8 A. The exact factor is 3.82, so it's not quite four, but  
9 close enough.

10 Q. All right. Now, you also testified to an upfront  
11 payment, correct?

12 A. Yes, that's right.

13 Q. And that was based upon the payments called for in the  
14 MSKCC general license, correct?

15 A. Um, the agreements between Juno and Memorial Sloan  
16 Kettering.

17 Q. Now, to be clear, you testified to two different types of  
18 payments. The first one were milestone payments that totaled  
19 \$3.5 million, correct?

20 A. 3.35 million.

21 Q. 3.35. Thank you.

22 And the second one was what you called success  
23 payments, correct?

24 A. Yes. That is how they are termed in the agreement.

25 Q. And the success payments in the agreement basically

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1 provide that if Juno stock got to certain levels, 10 times  
2 higher, 20 times higher, 50 times higher, then payments would  
3 be made to Memorial Sloan Kettering, correct?

4 A. Um, it's 10 times, 15 times, and 30 times. Under that  
5 agreement, Juno is the licensee, whereas at the hypothetical  
6 negotiation Kite is the licensee.

7 Q. Understood. But what I want to just make sure is clear  
8 is that the success payments in the Memorial Sloan Kettering  
9 agreement were based upon the price of Juno stock, not Kite  
10 stock, correct?

11 A. That's right, you know, similar to the running royalty  
12 would be applied to Juno sales not Kite sales --

13 Q. Could you please just answer my question, sir. You know  
14 how this is done. You are a professional witness. So we  
15 have a short time period. We are trying to get the jury out  
16 of here. Just answer the question.

17 THE COURT: That's argumentative.

18 BY MR. WEINBERGER:

19 Q. All right. So Juno's stock did not reach the levels by  
20 October 2017, which would have triggered the \$150 million  
21 payment you testified about, correct?

22 A. Yeah, I'd have to think about exactly when those were  
23 triggered. It probably didn't occur until early 2018.

24 Q. And in fact, by 2017, in October, the date of the  
25 hypothetical negotiation, the only payment that would have

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1       been due to MSKCC under that stock provision was \$10 million,  
2       correct?

3       A. I don't recall the exact timing, that may be right, but I  
4       actually was thinking there had been further triggers at that  
5       point. But I don't have that -- that level of precision in  
6       my memory.

7       Q. So you can't dispute right now that the Juno stock had  
8       reached the level where only \$10 million was due to MSKCC,  
9       not 150, correct?

10      A. That's right.

11      Q. So the way you got to 150 was that you substituted Kite's  
12      stock price for Juno's stock price, correct?

13      A. No, not at all.

14      Q. Well, how did you get to \$150 million based upon a Juno  
15      stock success factor that was not reached?

16      A. You are confusing Juno and Kite. So at the hypothetical  
17      negotiation, we specify what would be the outcome of that  
18      hypothetical negotiation.

19               Starting with an agreement between Sloan Kettering  
20      as the licensor, Juno as the licensee. But it's different at  
21      the hypothetical negotiation, because there, Juno is the  
22      licensor and Kite is the licensee.

23      Q. All right. So but the question is, you calculated  
24      \$150 million based upon the Kite stock price in October 2017,  
25      correct?

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1 A. It is based upon the triggers on the success payments.  
2 Just like what was done by Kite's expert, Dr. Rao.

3 Q. Yes, but the trigger was the Kite stock price that you  
4 used, correct, not the Juno stock price?

5 A. Applying the agreement and applying the terms, it applies  
6 to Kite, it applies to Kite sales, and it applies to the  
7 performance of YESCARTA.

8 Q. So the answer to my question is yes, you used the Kite  
9 stock price to determine whether the success payments were  
10 triggered, correct?

11 A. I would put it differently.

12 Q. Well, that's what you presented in your slide this  
13 morning as to how the \$150 million was triggered. Right?

14 A. I put it differently.

15 Q. The Juno stock price -- I just want to make sure we're  
16 clear on this. The Juno stock price never got to the levels  
17 that would have triggered that \$150 million payment to  
18 Memorial Sloan Kettering, correct?

19 A. Um, in effect, yes, given the acquisition.

20 Q. October 2017 the Juno stock price was nowhere near the  
21 level that would have triggered \$150 million payment to  
22 Memorial Sloan Kettering; yes or no?

23 A. I would have to disagree with you.

24 Q. You think the Juno stock price did reach a level that  
25 triggered \$150 million success payment?

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1 A. Ultimately, as I understand it, there were payments and  
2 there were monies received by Sloan Kettering of  
3 approximately \$150 million.

4 Q. Excuse me, but I'm asking as of October 2017, and I think  
5 we have been through this already.

6 A. It --

7 Q. Let me finish the question. As of October 2017, you  
8 agree that the Juno stock price was nowhere close to the  
9 multiple that would trigger \$150 million success payment,  
10 correct?

11 A. Well, in all fairness, some of your questions are  
12 October 2017, others aren't.

13 Q. If I'm not clear, let me know. I want to be clear.

14 A. Yeah. And I just can't agree with this characterization  
15 of nowhere near. I don't have the precision of time of when  
16 it hit, but it was getting darn close around that time, and I  
17 just don't recall that. So I can't say nowhere near.

18 Q. So if hypothetically that payment that would have been  
19 earned at that time was only about \$10 million and not  
20 \$150 million, you would agree that would be nowhere close,  
21 right?

22 A. There is a significant difference between 10 and 150.

23 Q. Okay. Now, so if that was true, then the real world  
24 payment to Memorial Sloan Kettering is 10 million -- strike  
25 that question. Let's move on.

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1 Now, Juno contends that both companies were using  
2 the '190 patent in their product development, correct?

3 A. Both Juno and Kite.

4 Q. And both companies -- Juno used the patent in the JCAR15  
5 product that it tried to bring to market, correct?

6 A. Yes. That's right.

7 Q. And there were patient deaths that the jury has heard  
8 about, and the clinical trials were halted by the FDA,  
9 correct?

10 A. There has been testimony along those lines.

11 Q. Kite figured out how to make a product that was approved  
12 by the FDA as safe and effective, correct?

13 A. Well, Kite did launch a product. I can't speak to  
14 exactly the development process, given the relationship with  
15 NCI.

16 Q. The question was it figured out how to make a product  
17 that was approved by the FDA as safe and effective; is that  
18 right?

19 A. It has made a product that is approved by FDA.

20 Q. So Kite's stock price would reflect the success that they  
21 achieved that Juno never achieved, correct?

22 A. Close. It reflects the successes of Kite, it does not --  
23 and YESCARTA, but not with the -- what you were saying with  
24 relative to Juno.

25 Q. Now, let me just ask you a few questions about the last

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1 item you talked about, which is the profit. And first, it's  
2 correct that the numbers you've given the jury, the upfront  
3 payment on the royalty rate are only through the time of  
4 trial, correct?

5 A. The upfront payment is a single payment. It doesn't get  
6 made multiple times. So that applies throughout the term.

7 Q. That's not what you said in your report, is it, sir?

8 A. Um, yes, I said it's a single, one-time upfront payment.  
9 The definition of an upfront payment is that it's paid up  
10 front and paid once. It's not a multiple or recurring  
11 payment.

12 Q. But you understand that Juno has reserved the right to  
13 come back and ask Kite for --

14 MR. HEINRICH: Objection.

15 THE COURT: Let him -- let him finish his question.  
16 And the question of counsel --

17 MR. WEINBERGER: I'll withdraw it, Your Honor. I'll  
18 ask another question.

19 THE COURT: All right. Thank you.

20 BY MR. WEINBERGER:

21 Q. Would you look to paragraph 54 of your report, which  
22 should be in your binders there.

23 A. Sure. Give me just half a moment.

24 Q. Sure.

25 A. Yes, I'm there.



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1 Q. All right. Now you're going to have to wait for me.

2 Sorry.

3 THE COURT: What number is it?

4 MR. WEINBERGER: Paragraph 54.

5 THE WITNESS: Page 31.

6 BY MR. WEINBERGER:

7 Q. And in this paragraph 53, you state, "The reasonable  
8 royalty discussed herein," which includes both the upfront  
9 payment and the running royalty, correct?

10 A. Yes. So this is referring to --

11 Q. Just -- that statement, "reasonable royalty," refers to  
12 just the -- to both the upfront payment and the running  
13 royalty, correct?

14 A. Ultimately, reasonable royalties do include both  
15 components.

16 Q. And in your report, you stated, "The reasonable royalty  
17 discussed herein provides a reasonable estimate of damages to  
18 Juno caused by Kite's infringement for the period from 2017  
19 to Q4 to 2019 Q1," and you updated that, sir, to this last  
20 quarter, "Royalties discussed herein do not represent  
21 compensation for any damages or harm beyond 2019 due to the  
22 infringement by Kite." Is that correct?

23 A. Yeah. That's right. So the one piece here that you  
24 omitted is that's for the period for which Kite has provided  
25 sales data.

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1 Q. Well, we can't provide sales data for 2020, it hasn't  
2 happened yet.

3 A. Exactly.

4 Q. Okay. But you also say in paragraph 54, "Royalties  
5 herein only capture damages through 2019 Q1, and as such,  
6 represent a period of time in which Juno does not have a  
7 commercialized product in the market," correct?

8 A. That's true.

9 Q. And then you say at the bottom of that paragraph,  
10 "Damages for the period after JCAR17's launch may include  
11 lost profits on JCAR17 sales due to Kite's infringement, in  
12 addition to a reasonable royalty," correct?

13 A. Yes. That's right. And as you will recall from earlier,  
14 the statute provides for damages no less than a reasonable  
15 royalty. And the reasonable royalty is far less than what  
16 lost profits would be. So there's a potential, as a legal  
17 matter, that subsequently perhaps there could be a situation  
18 where lost profits could be in addition to reasonable  
19 royalties. In other words, there could be a difference  
20 between the two, and the delta may be available later on if  
21 that's ever determined in a separate court action.

22 Q. So the point I'm making is although you've talked a lot  
23 in your testimony about the products that Juno wants to bring  
24 to market, JCAR17, and the nature of competition that would  
25 happen at that time, that is not -- the lost profits on such

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1 products are not included in the numbers you put before the  
2 jury, correct?

3 A. There is a delta between lost profits and reasonable  
4 royalties. The royalties capture competitive effects, but  
5 isolated to the value contribution of the technology separate  
6 and apart from other items, lost profits is more expansive.  
7 It's not apportioning to the contribution of the technology,  
8 it's looking at the whole kit and caboodle, it's looking at  
9 the entire profits across the entire product.

10 MR. WEINBERGER: Your Honor, I move to strike  
11 everything in the answer after yes.

12 THE COURT: I don't think he said yes.

13 MR. WEINBERGER: Well, then I'll ask it again.

14 BY MR. WEINBERGER:

15 Q. The royalty damages that you've put before the jury do  
16 not include any damages that Juno might seek for lost profits  
17 after it comes to the market with a competitive product,  
18 correct?

19 A. For the reasons I just described, there could be a delta  
20 between --

21 Q. Sir, please, is it correct or not?

22 A. For the reasons I described to you.

23 Q. So the answer is yes?

24 A. For the reasons I described, yes.

25 Q. So that means if you're Kite and Gilead sitting at the

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1 hypothetical negotiation, trying to determine what you might  
2 be willing to pay for this license, you have no idea what  
3 your exposure might be after 2019 if Juno comes back and says  
4 now we are going to sue you for lost profits, correct?

5 A. No. That is fundamentally wrong. And the reason is that  
6 at the hypothetical negotiation, if there's a license, that  
7 means there is permission. That would mean that Kite would  
8 be granted permission to use the patent, and thus there would  
9 not be a future legal proceeding.

10 Q. Oh, I understand that they have permission to use the  
11 patent, but Juno can come back and claim that they need to  
12 pay a lot more money for the license, correct?

13 A. No. Again, you are fundamentally wrong, because you are  
14 confusing an outcome of a hypothetical negotiation versus a  
15 court action that might result in damages in the face of  
16 Kite's actual infringement.

17 Q. So just to clarify, this upfront payment and the royalty  
18 rate you've testified to, is that going to be what Kite will  
19 have to pay until the end of the patent term, which is 2024?

20 A. I have not made a determination of post-judgment  
21 royalties, and there is a distinction, as I understand it, in  
22 the law. I'm an economist. But my understanding is the law  
23 is that once there is a finding of infringement, and if that  
24 infringement is willful, there can be other forms of  
25 royalties that might be available. And I have not been asked

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1 to do that. I have been looking at what would be the royalty  
2 rate resulting from the hypothetical negotiation. So again,  
3 it's apples and oranges between a court action versus a  
4 hypothetical negotiation that's not a court action.

5 Q. All right. So the bottom line is that Kite would not  
6 know in 2017 at the hypothetical negotiation how much more it  
7 might have to pay in lost profits after Juno comes to market  
8 with a product, right?

9 A. That is incorrect. At the time of the hypothetical  
10 negotiation, there would be certainty and resolution in the  
11 hypothetical.

12 Q. But Juno could still claim lost profits damages when  
13 their product comes to market, right?

14 A. Not in the hypothetical world, but in the actual world,  
15 in the face of the actions and activities undertaken by Kite.

16 Q. All right. So let me move on to another subject.

17 Let's talk about a basic principle, patent damages.  
18 You believe that a reasonable royalty should separate out the  
19 value contribution of the patented technology from other  
20 contributions, correct?

21 A. Yes. I agree.

22 Q. And you've written articles that say that, correct?

23 A. I'm sure that I have.

24 Q. And you've said in those articles that the apportionment  
25 between the patentees -- of the patentee's damages between

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1 the patented feature and the unpatented features must be  
2 reliable and tangible, not conjectural or speculative,  
3 correct?

4 A. I don't recall those exact words, yet I do agree with  
5 them.

6 Q. Okay. Now, you showed the jury a slide from  
7 Ms. Tomasello who talked about the importance of the CAR  
8 construct?

9 A. Yes, that's right.

10 Q. I think she said something like there would be no product  
11 without the construct, correct?

12 A. That's right.

13 Q. And you relied on that in part for your opinion about the  
14 value of the patent, right?

15 A. It's one element that goes towards why the patented  
16 technology is fundamental.

17 Q. Now, she also said that there were other elements that  
18 were important for this product, correct?

19 A. Yes. There are other factors, things like manufacturing  
20 and lymphodepletion and administration.

21 Q. And if you don't have clinical protocol and results for a  
22 product like this, you don't have a product, do you?

23 A. Um, not a commercialized product.

24 Q. And if you don't have good manufacturing processes that  
25 can safely and effectively manufacture the product, you don't

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1 have a product, correct?

2 A. You're not going to have a successful product.

3 Q. Right. And if you don't have FDA approval, you're  
4 certainly not going to have a product, correct?

5 A. Not a commercialized product.

6 Q. And the Juno product didn't have any of those things, did  
7 it? I'm talking about JCAR15 right now, the product that  
8 utilizes the '190 patent construct. Is that right?

9 A. Um, I think I'm going to have to disagree with you on  
10 that.

11 Q. Well, you're not disputing that the FDA that Juno's stock  
12 development of JCAR15 in 2017, right? We kind of talked  
13 about that already.

14 A. They did cease continuing trials of JCAR15.

15 Q. And is it true that Juno determined that it would have to  
16 make protocol modifications and process improvements if it  
17 wanted to pursue JCAR15 further, right?

18 A. Um, I believe those were items that Juno was considering  
19 in its next course of action.

20 Q. Well, in your report, you state, "Although Juno believed  
21 that it could have proceeded with JCAR15 in clinical testing  
22 with certain protocol modifications and process improvements,  
23 Juno would have first needed to conduct a phase I clinical  
24 trial to establish preliminary safety and to select a  
25 recommended phase II dose with those improvements;" is that

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1 right?

2 A. That sounds right.

3 Q. And protocol modifications means changes to the clinical  
4 protocol, correct?

5 A. Yes.

6 Q. And process improvements means improvements to the  
7 manufacturing process, right?

8 A. It's a broader term. There's a lot of aspects to the  
9 overall process. It's not just manufacturing. So there's  
10 different elements that could have been altered.

11 Q. And you are not -- it's not your opinion that Kite did  
12 not make contributions to the YESCARTA product, beyond the  
13 patent, is it?

14 A. It is not my opinion that they did not make  
15 contributions.

16 Q. And you agree that the construct under the patent is not  
17 sufficient to get an approved product, correct?

18 A. Not in and of itself. It's a fundamental basis, but it's  
19 not sufficient.

20 Q. And we know it's not sufficient because Juno using it was  
21 unable to complete the work necessary to get an approved  
22 product, right?

23 A. Um, not quite right. They did not continue to proceed  
24 down that path, but as we just noted a moment ago, that  
25 doesn't mean they were unable; rather, they chose.



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1 Q. And among the factors that go into providing a  
2 commercialized product are the ones we talked about;  
3 manufacturing process, clinical protocols. So far is that  
4 correct?

5 A. There is a variety of things that go in; manufacturing,  
6 administration, lymphodepletion regimens. There is even a  
7 logistical platform called Kite Connect that helps with  
8 scheduling of patients. I mean, all of these things, you  
9 know, go towards the sales of the product, but they are not  
10 the demand drivers.

11 Q. When you say they are not the demand driver, you don't  
12 think that a doctor knowing that a product has been safely  
13 manufactured, that the genetic engineering has been done  
14 correctly, that the FDA has approved the product, you don't  
15 think that drives demand for doctors to prescribe it for  
16 their patients?

17 A. While I think some of those items are factors, I don't  
18 think they are the drivers of demand. Now, you did throw in  
19 there the FDA approval, and certainly FDA approval is  
20 important, but that is also based upon the efficacy of the  
21 product, which as I understand it is based upon the Sadelain  
22 CAR construct.

23 Q. Well, the FDA approval encompasses all the things that I  
24 have been talking about, doesn't it; the manufacturing the  
25 lymphodepletion, the clinical protocols, all of it, correct?

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1 A. All of that would be submitted to FDA.

2 Q. And it's not your opinion that doctors care which  
3 construct is used in the drug, do they?

4 A. It is kind of funny, because it's not the name of the  
5 construct itself, it's whether the construct works. And  
6 here, the basis for why Kite's YESCARTA works is because of  
7 the Sadelain CAR construct.

8 Q. Even though Juno couldn't make it work, correct?

9 A. Again, I'm going to have to disagree with you on that for  
10 the reasons I described.

11 Q. That's what this is all about, disagreements.

12 So I want to turn now to your calculation of the  
13 first adjustment you made, the CAR-T developer adjustment.  
14 Can we put back the first demonstrative.

15 And, again, just to remind the -- is that up? All  
16 right.

17 And just to remind the jury, you multiplied the  
18 royalty rate in here by almost double to adjust the MSK  
19 license to make it look more like a license between two CAR-T  
20 developers, right?

21 A. Um, I applied a 90 percent increase, which is a factor of  
22 1.9, close to a factor of 2, to get to a point of the effect  
23 of a CAR-T developer of Novartis in 2015.

24 Q. And you applied the CAR-T developer adjustment because  
25 Memorial Sloan Kettering is not a CAR-T developer, right?

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1 A. That is part of the reason.

2 Q. But Novartis is a CAR-T developer, correct?

3 A. Yes, they were.

4 Q. And the Novartis license that was entered into, I think  
5 in 2015, is closer in time to the hypothetical license than  
6 the MSKCC agreement, right?

7 A. Yes, exactly.

8 Q. So you could have just looked at the Novartis license,  
9 which already has a competitor as the licensee, and adjusted  
10 that, right?

11 A. Well, one could do that, and that would be inappropriate.

12 Q. And one of the reasons you say it's inappropriate is  
13 because it was a settlement; is that correct?

14 A. There is multiple reasons. It's a different technology.  
15 You can see that from the underlying rates with the St. Jude  
16 Research Hospital of 2.5 percent versus 7.25. It's also a  
17 settlement of litigation. And there are other reasons.

18 Q. All right. Let's talk about the difference in  
19 technology. What was licensed by St. Jude to Juno and then  
20 from Juno to Novartis was what's called a 4-1BB construct,  
21 correct?

22 A. It's a patent that relates to a 4-1BB construct.

23 Q. And that is the construct that Novartis used in  
24 developing its product, correct?

25 A. It is, as I understand it, the construct for KYMRIAH,

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1 which is the Novartis product.

2 Q. And that is also the construct that Juno is currently  
3 using to try and get JCAR17 approved, correct?

4 A. Yes, that is right. Let's be careful not to confuse in  
5 this instance a patent with a construct, because the  
6 underlying patent is different than the '190 Sadelain patent.

7 Q. But you understand that without a license Novartis could  
8 not have used the 4-1BB construct, right?

9 A. I would think that's right.

10 Q. So --

11 A. I --

12 Q. That's fine.

13 A. No, I just need to qualify as I think it through. I  
14 would have to think about that.

15 Q. You don't know?

16 A. Not right this moment.

17 Q. But you really can't testify here as comparing the 4-1BB  
18 to the '190 patent which one is more valuable, can you?

19 A. So there is two distinctions there. Again, you are  
20 confusing a construct with a patent. The '190 patent is what  
21 provides the CAR construct. 4-1BB is a different construct.  
22 It's not a patent.

23 Q. Now, let me ask you about this settlement issue that you  
24 raised. You're -- you've written articles about cases from  
25 the federal circuit numerous times, right?

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1 A. Multiple times anyway.

2 Q. And the federal circuit is the court of appeals that  
3 specializes in patent cases, correct?

4 A. That's right.

5 Q. And in your report, you quote from a case called *ResQNet*  
6 *vs. Lansa*. It's footnote 481 of your report.

7 A. I'm familiar with the case.

8 Q. And it's correct in that case that the Court found the  
9 most reliable license in the record arose out of a litigation  
10 settlement, correct?

11 A. In that case, yes, that's right.

12 Q. They said there is no rule that you can't use a  
13 litigation settlement agreement and adjust it to come up with  
14 a comparable royalty, is there?

15 A. I'm not aware of a blanket rule in that regard.

16 Q. Okay. Let's move to the second adjustment you made. And  
17 this second adjustment basically again doubled the amount of  
18 the royalty from 13.78 to 27.06, correct?

19 A. It's a 192 percent increase, so a factor of 1.92.

20 Q. So starting from the beginning, we are now about four  
21 times higher than the MSKCC license, right?

22 A. The factor -- overall factor is 3.82, so just under 4.

23 Q. Right. And that adjustment is to account for competition  
24 between Kite and Juno which you claim is more intense, more  
25 important than the competition between Novartis and Juno,

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1 right?

2 A. It's the difference between the competitive effect of  
3 Juno -- of Novartis in 2015, early 2015, relative to the  
4 competitive effect of Kite in late 2017.

5 Q. But talking about competitive effects, Juno and Kite are  
6 not actually competitors in the market for sale of CAR-T  
7 products, correct?

8 A. They are competitors on multiple fronts.

9 Q. My question was they are not currently competitors in the  
10 market currently for the sale of these products to doctors,  
11 correct?

12 A. Maybe I misheard you. Are you referring to Kite?

13 Q. Kite and Juno.

14 A. Kite and Juno.

15 Q. Correct.

16 A. Okay.

17 Q. Juno doesn't have a product.

18 A. They have a product. It's not for sale in the  
19 marketplace. It's being used in clinical trials. So yes,  
20 there is a product out there.

21 Q. Fair enough.

22 A. And yes, they do compete. They compete vigorously. They  
23 are competing for patients. They are competing for clinical  
24 trial sites. They are competing for investment. They are  
25 competing on very -- on a myriad of dimensions.

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1 Q. The one thing they are not competing for, sir, is sales,  
2 correct?

3 A. Juno is not selling, so they are not competing in terms  
4 of dollars. They are competing for the clinical trials. So,  
5 in other words, they are directly competing for providing  
6 that therapy to a patient.

7 Q. You agree that they are not competing for sales, right?

8 A. Not for dollar sales.

9 Q. And there is no guarantee, sir, that JCAR17 will ever  
10 come to the market, correct?

11 A. Not a guarantee. I mean, the marketplace widely views it  
12 as very, very likely.

13 Q. But there is no guarantee, correct?

14 A. Correct.

15 Q. So Novartis has been out there for the last year and a  
16 half and is out there right now paying Juno less than  
17 5 percent royalty for selling KYMRIA to treat the DLBCL  
18 indication, correct?

19 A. There are some sales of KYMRIA for DLBCL as I recall.

20 Q. But in your opinion, Kite should have been paying Juno  
21 during the same period approximately 27.6 percent for selling  
22 YESCARTA to treat the same indication, correct?

23 A. Yes. It's a different patent at a different point in  
24 time.

25 Q. All right. Let's talk about the nature of competition

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1 from Novartis in 2015.

2 One of the reasons you doubled -- almost doubled the  
3 royalty rate from the first adjustment is because you believe  
4 that Novartis was not a formidable competitor in 2015, right?

5 A. It's the relative competitive effects. So I -- you know,  
6 the analysis compares the relative effect of Novartis in 2015  
7 to the effect of Kite in 2017.

8 Q. Okay. So, in fact, in your slide we can put up -- it's  
9 29, I think.

10 You said -- among the things you said to distinguish  
11 Novartis from -- in 2015 from Kite in 2017 was questionable  
12 commitment to CAR-T, correct?

13 A. That's right.

14 Q. All right. Now, at this point in time Juno was a company  
15 that was -- had a rough value of about \$800 million, right?

16 A. I'll take your word for it on that.

17 Q. It's in your report.

18 A. Even better.

19 Q. Okay. And you are aware that Novartis is one of the  
20 biggest pharmaceutical companies in the world, right?

21 A. I am.

22 Q. It's more than 200 times bigger than Juno, correct?

23 A. At that time?

24 Q. Yeah.

25 A. Um, that's probably about right. I think Novartis was



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1 over 200 billion.

2 Q. Right. And your opinion is that Juno wasn't too worried  
3 about competition from Novartis, right?

4 A. Um, no. There are competitive effects. In fact, if you  
5 recall adjustment 2, it's comparing an annual effect of 445  
6 million to 1.3 billion. So I'm not saying Novartis had a  
7 zero effect. But I'm quantifying the distinction or the  
8 difference between Novartis in 2015 and Kite in 2017.

9 Q. What you are saying -- you said that Novartis had a  
10 questionable commitment to CAR-T, right?

11 A. Yes, that's right.

12 Q. And you testified that Juno was not as worried about  
13 Novartis as they were about Kite in 2015, right?

14 A. Juno is not as worried about Novartis in 2015 as they  
15 were about Kite in 2017.

16 Q. All right. So could you turn in your binder to  
17 Exhibit 253, please.

18 MR. HEINRICH: I need a binder.

19 MR. WEINBERGER: I'm sorry.

20 THE COURT: This is DX253?

21 MR. WEINBERGER: Yes, Your Honor.

22 THE COURT: Thank you.

23 MR. WEINBERGER: If this isn't in evidence, I'm not  
24 sure, frankly, I move to admit it.

25 THE WITNESS: Would you all mind providing me with a

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1 copy?

2 MR. WEINBERGER: Do you have --

3 THE WITNESS: I do not have a binder.

4 MR. WEINBERGER: It should be in one of your binders  
5 there, an exhibit binder, 243.

6 THE WITNESS: No.

7 MR. HEINRICH: I don't believe he has defense  
8 exhibits.

9 MR. WEINBERGER: My apologies.

10 THE COURT: Any objections to 253 being received?

11 MR. HEINRICH: No objections.

12 THE COURT: 253 is received.

13 (Exhibit DX253 was received.)

14 BY MR. WEINBERGER:

15 Q. And the cover of this document is an e-mail -- we can  
16 publish that -- e-mail from Hans Bishop, who was the CEO of  
17 Juno and who testified here this morning, in November 2014,  
18 right?

19 A. That's what it looks like.

20 Q. And this was a presentation that was made to the CEO of  
21 the company, correct?

22 A. I do not know.

23 Q. Now, over on the page that is the second page, which  
24 bears the number 0002, it states, "Juno is in a very  
25 competitive environment. Novartis is formidable, two-year

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1 head start and is committed to this space." Correct?

2 A. Yes. Let me just get my bearings here real quick. So  
3 this was -- okay. So this was back in 2014. Yes, I see  
4 that.

5 Q. And that accurately reflects Juno's mindset in 2015 right  
6 around the time that it granted Novartis a license for the  
7 patents that we talked about earlier, right?

8 A. Well, I can't speak to the mindset of Juno from this  
9 document. I don't recall it. Yet it's not inconsistent with  
10 how I have approached my analysis.

11 Q. So you agree that Juno believed that Novartis was a  
12 formidable competitor with a two-year head start?

13 A. It's not inconsistent with my view and my analysis.  
14 Again, just going back to the point that I'm looking --

15 Q. Could you just answer the question, please.

16 A. Fair enough.

17 Q. Appreciate it.

18 A. Fair enough.

19 Q. We would all appreciate it.

20 So you also said in your slide, talking about  
21 Novartis in 2015, that there was no overlap with Juno's lead  
22 profit candidates, right?

23 A. That's right.

24 Q. And by that you mean Juno thought that Novartis was  
25 focused on pediatric leukemia which was not Juno's focus,

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1 correct?

2 A. No. It was a simpler point that Novartis wasn't leading  
3 with 3L DLBCL.

4 Q. That's what I meant. If I didn't state it correctly,  
5 your point was that Novartis was focused on pediatric  
6 leukemia and Juno was focused on DLBCL indication, right?

7 A. No. You're -- it may be a subtle difference for you, but  
8 focusing versus what a lead product candidate can be a little  
9 bit different. I was just taking the simpler point of the  
10 lead product candidate.

11 Q. Let me ask you this: Juno was projecting in this time  
12 period that Novartis would eventually enter into the DLBCL  
13 space, right?

14 A. Yes.

15 Q. And, in fact, the license wasn't limited to the one  
16 indication; they had the freedom to develop any indication  
17 they pleased, right?

18 A. I do not recall any restrictions in the license agreement  
19 for particular indications.

20 Q. I'm just trying to consolidate, so just give me one  
21 second.

22 And in 2015, isn't it correct that Juno did not have  
23 a belief that it was going to beat Novartis to market with  
24 its JCAR17 product in third-line DLBCL?

25 A. I'm not sure I fully heard that right, yet -- my

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1 understanding is that Juno was not expecting to beat Novartis  
2 to market for DLBCL.

3 Q. Right. And you never even -- you never looked for any  
4 evidence that suggested that at any time since the Novartis  
5 license Juno thought it was going to beat Novartis to market  
6 in third-line DLBCL, right?

7 A. Well, it depends upon the point in time. So if we are  
8 focused on the hypothetical negotiation, that's, you know, a  
9 different point in time.

10 Q. Well, I'm talking about 2015. From 2015 forward, there  
11 wasn't any evidence that suggested that Juno thought it was  
12 going to beat Novartis to market in third-line DLBCL, right?

13 A. Sorry. Maybe I misheard you earlier. I thought you were  
14 focused on the hypothetical negotiation.

15 Q. No, starting in 2015.

16 A. Back in 2015, um, there were different views on exactly  
17 how that would proceed.

18 Q. And you've seen Juno projections showing that they  
19 expected to be approved in an indication well after Novartis,  
20 right?

21 A. There are different projections that go different ways.  
22 Depends again on the point in time and whether one is just  
23 looking at company-announced information versus private  
24 estimates.

25 Q. And I was actually going to come to that next, because

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1 when you are dealing with a company like this which has  
2 people doing financial projections and modeling, there are a  
3 lot of different projections that say a lot of different  
4 things, right?

5 A. There are different projections at different points in  
6 time.

7 Q. And the basis for your second adjustment, which almost  
8 doubles from the first adjustment, it almost quadruples from  
9 the first -- from the original MSKCC agreement, the basis was  
10 a model that you used from Juno in 2016. I think you  
11 summarized that on an exhibit, correct?

12 A. There is two parallel models from Juno.

13 Q. Right. So you looked at an earlier one in 2016 and you  
14 compared it to a later one in 2017, right?

15 A. It's, um, you know, early 2016 to just after the  
16 hypothetical negotiation, and it provides an apples-to-apples  
17 comparison, because they are the two similar financial models  
18 that were produced by Juno.

19 Q. That spreadsheet is what you summarized on the left side  
20 of Exhibit 1247, correct?

21 A. I don't have that committed to memory, but if we could  
22 pull it up, there is two general columns. Well, there is a  
23 first column that just lists the different labels, like what  
24 each row represents, but there is two primary columns of  
25 data, and those are reflects the early model versus the late

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1 model --

2 Q. All right.

3 A. -- for Juno. And it reflects the differences in the  
4 marketplace at that point in time.

5 Q. Yeah. And you are relying on a note -- on a projection  
6 in 2016 that indicated that Novartis had 10 percent of the  
7 market, and you are comparing that to other projections a  
8 year later, right?

9 A. There are different market shares for different  
10 indications. So if we look at the document, you will see it  
11 breaks it down by indication, and it's, you know, more of a  
12 roughly two-year difference.

13 Q. And you have -- you never talked to anyone at Juno about  
14 the -- up until the time you were deposed in this case about  
15 what the purpose of this model was, did you?

16 A. I don't have that degree of specificity in terms of the  
17 timeline.

18 Q. You recall that at your deposition you were unable to  
19 state what the purpose was of that model, right?

20 A. That doesn't immediately sound familiar.

21 Q. And you didn't speak to anyone at Juno about this model  
22 before you relied upon it for your analysis, correct?

23 A. I do not recall speaking to folks at Juno about it. It  
24 was a subject of deposition testimony. So I could see what  
25 they said about it under oath. But I do not recall offhand

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1 anyway discussions.

2 Q. Who testified about this model under oath, sir?

3 A. Um, I would have to take a look back at my report. I can  
4 do that.

5 Q. Let's go back to the agreement you started with, which  
6 was the MSKCC/Juno agreement. Under that agreement, am I  
7 correct that Juno got not only patent rights but know-how?

8 A. Yes.

9 Q. And it got patent rights to more than the '190 patent,  
10 correct?

11 A. That's right.

12 Q. And under the hypothetical negotiation, all Kite would  
13 get is a bare license to the '190 patent, right?

14 A. That's right.

15 Q. And the know-how that Juno got but that Kite would not  
16 get, you don't believe that was worthless, do you?

17 A. No, not worthless. It does not affect the royalty rate  
18 under that agreement, which is 7.25 percent for just the  
19 patent involved.

20 Q. Could you just answer my question, please, so we can move  
21 on?

22 MR. WEINBERGER: I'm going to move to strike  
23 everything after the first sentence, Your Honor.

24 THE COURT: So everything after "no, not worthless"  
25 is struck. And the jury will be ordered to disregard it.



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1 BY MR. WEINBERGER:

2 Q. All right. So were you in court when Dr. Sadelain  
3 testified the other day?

4 A. Yes, I was.

5 Q. Did you hear him say that this know-how was very valuable  
6 to Juno?

7 A. Yes, to that effect, or at least that was part of the  
8 takeaway.

9 Q. And you don't disagree with that, do you?

10 A. No, I don't.

11 Q. In fact, under the license agreement that you just  
12 referred to, there is a provision that states that if -- in  
13 substance, that if there is no valid patent on what was  
14 transferred for MSK -- from MSKCC to Juno, a license fee of  
15 3.625 percent would still be due, correct?

16 A. That's right.

17 Q. And Juno wouldn't have agreed to pay that for the  
18 know-how if it thought it was not valuable, right?

19 A. I would think that know-how would be considered to be  
20 valuable.

21 Q. But you didn't make any adjustment for the licensed  
22 technology in the MSKCC Juno agreement compared to the  
23 licensed technology at the hypothetical negotiation, right?

24 A. It would be inappropriate to make an adjustment for  
25 know-how based upon the --

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1 Q. Sir, did you make an adjustment or not?

2 A. No, I did not.

3 Q. Thank you. Now, let's talk a little about the first  
4 mover advantage.

5 Isn't it true that at the hypothetical negotiation  
6 in October 2017, Juno expected to be third in the market  
7 behind Novartis and behind Kite?

8 A. In effect, yes.

9 Q. You say that in your report in paragraph 113, right?

10 A. I would imagine that I do. I don't recall the paragraph  
11 number.

12 Q. Okay. So at the hypothetical negotiation, Juno was not  
13 giving up the right to be first to market, right?

14 A. They were granting a first mover advantage to Kite and  
15 that --

16 Q. Sir, please, can you answer my question. Juno was not  
17 giving up the right to be first to market; it had already  
18 given that away, correct?

19 A. In effect.

20 Q. And when I say given it away, I don't mean for free.  
21 They gave it to Novartis in exchange for the license  
22 agreement that we've talked about, right?

23 A. Yes, but KYMRIA did not have --

24 Q. Sir, please. Your counsel will have an opportunity.  
25 Please just answer the question.

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1 And not only did Juno know that they would be third  
2 to market, they knew they would be third to market in the  
3 DLBCL indication that JCAR17 was supposed to target, right?

4 A. There was an expectation that Novartis would get 3L DBCL  
5 (sic) approval shortly after the hypothetical negotiation in  
6 2017.

7 Q. Now, the second model that you used, the one you compared  
8 the 2016 model to to make this adjustment, that was a  
9 document that was referred to as Maple Company model. Do you  
10 remember that?

11 A. I do.

12 Q. And a particular part of the tab of the spreadsheet  
13 called JCAR17 assumptions was referenced in your attachment  
14 D4 to your report, correct?

15 A. Possibly. Let me just take a quick look.

16 Q. Take a look.

17 A. Which tab?

18 Q. This is a little difficult, because it's a -- it's a  
19 spreadsheet document, but you relied on, it's referenced in  
20 D4, row 359, and you got data from row 374 to 376.

21 A. I'm sorry. I'm still not following your question. So  
22 I'm at D4, and I reference the Maple Company model, and I'm  
23 looking at a particular tab on that model relating to JCAR17.

24 Q. Okay. Well, I'm going to put up a screenshot of the tab  
25 that you referenced, and I want to ask you a question about

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1 it. Can we do that?

2 MR. HEINRICH: This is not in evidence. We would  
3 ask that it be taken down.

4 MR. WEINBERGER: All right.

5 BY MR. WEINBERGER:

6 Q. This is a spreadsheet that you relied on, which was a  
7 Juno document, to make your adjustments, correct? This was a  
8 spreadsheet you relied on?

9 MR. HEINRICH: Are you going to move it into  
10 evidence or --

11 MR. WEINBERGER: No, I'm trying to just lay a  
12 foundation, and then I'll move it into evidence.

13 BY MR. WEINBERGER:

14 Q. You relied -- as we established in your report, D4, this  
15 was the second set of projections that you relied on in  
16 comparing -- when you compared the competitive impact from  
17 2016 to 2017, right?

18 A. There is a particular financial model I rely upon, and  
19 it's designated by what is called a Bates number on  
20 attachment D4. I don't know if that is what you are putting  
21 up on the screen or not.

22 Q. All right. So let me --

23 THE COURT: I'm sorry. Can I see Mr. Chu and  
24 Mr. Dane at sidebar very quickly, please.

25 (At the bench.)

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1 THE COURT: I'm just concerned about the time. I  
2 know we have to get Mr. Schuetz on. And I don't want to  
3 interrupt Mr. Weinberger. But maybe if we're going to  
4 continue for a longer period of time, you may want to call  
5 Mr. Schuetz out of order, if that's agreeable.

6 MR. CHU: That is agreeable to us.

7 MR. DANE: To interrupt the cross and resume it  
8 later?

9 MR. CHU: Yes.

10 MR. DANE: When is Your Honor hoping to adjourn?

11 THE COURT: We have two jurors who are in -- one in  
12 Lancaster, one juror in Lancaster, so that's a long drive to  
13 go home. So I don't want to go beyond 4:15, 4:30.

14 MR. DANE: Okay. Let me -- can I talk to  
15 Mr. Weinberger and Mr. Lawton?

16 THE COURT: Sure.

17 MR. CHU: Judge, while we are here, my apologies,  
18 Your Honor, to you and everyone in the courtroom. I was  
19 doing some work, and I didn't realize you anticipated --

20 THE COURT: Don't worry about it.

21 MR. CHU: Thank you.

22 (In open court:)

23 MR. DANE: Your Honor, what Your Honor proposed we  
24 are amenable to and -- to bring in Mr. Schuetz.

25 THE COURT: Is this a good time to --

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1 MR. WEINBERGER: Yes. Absolutely, Your Honor.

2 THE COURT: There is a witness that needs to be  
3 called out of order, so we are going to stop with the  
4 examination of Dr. Sullivan and move to the next witness.

5 Let's take a short recess before we do that,  
6 10 minutes. During your absence do not discuss the case  
7 amongst yourselves or any other person. I think we need some  
8 air in here, I'm getting the impression.

9 (Thereupon, the jury retired from the courtroom.)

10 THE COURT: Let's bring the jury in.

11 THE CLERK: All rise for the jury, please.

12 (Thereupon, the jury returned to the courtroom.)

13 THE COURT: Could we have all the jurors be  
14 assembled with counsel. And the defendants are going to call  
15 a witness. With the agreement of counsel for plaintiffs, a  
16 witness is being called out of order.

17 MR. LAWTON: Your Honor, Kite calls Dr. Thomas  
18 Schuetz.

19 THE CLERK: Please right here, doctor, come forward.  
20 Would you please raise your right hand to be sworn.

21 THEREUPON:

22 THOMAS SCHUETZ,  
23 called in these proceedings and being first duly sworn,  
24 testifies as follows:  
25