

1 UNITED STATES PATENT AND TRADEMARK OFFICE
2 BEFORE THE PATENT TRIAL AND APPEAL BOARD

3 -----
4 MYLAN PHARMACEUTICALS INC.,
5 Petitioner

6 vs

7 NOVO NORDISK A/S,
8 Patent Owner

9 -----
10 Case IPR2023-00724
11 U.S. Patent No. 10,335,462

12 CONFIDENTIAL PROTECTIVE ORDER MATERIAL

13 Oral deposition of
14 CHRISTOPHER A. VELLTURO, Ph.D.

15
16 WASHINGTON, DC

17 WEDNESDAY, APRIL 24, 2024

18 9:07 a.m. EASTERN TIME
19

20 Job No.: 532167

21 Pages: 1 - 37

22 Reported by: Lisa V. Feissner, RDR, CRR, CLR

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2
3 Oral deposition of CHRISTOPHER A.
4 VELLTURO, Ph.D., held at the offices of:

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12 Pursuant to Notice, before Lisa V.
13 Feissner, RDR, CRR, CLR, Notary Public.
14
15
16
17
18
19
20
21
22

A P P E A R A N C E S:

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C O N T E N T S

EXAMINATION OF CHRISTOPHER A. VELLTURO, Ph.D. PAGE

By Mr. White 5

P R E V I O U S L Y

M A R K E D E X H I B I T S

(identified but not attached)

EXHIBITS PAGE

MPI Exhibit 1001 6

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P R O C E E D I N G S

CHRISTOPHER A. VELLTURO, Ph.D.,

having been first duly sworn, was examined and
testified as follows:

EXAMINATION

BY MR. WHITE:

Q Good morning.

A Good morning.

Q Would you state your name for the record.

A Christopher Allan Vellturo.

Q And you've been deposed a few times,
right?

A Yes.

Q So I'll skip the ground rules.
You're here today to talk about your
declaration in the IPR related to the '462 patent?

A That's my understanding, yes.

(Previously marked Novo Nordisk Exhibit
2300 presented to the witness.)

MR. WHITE: So I'll just go ahead and
give you a copy of that.

So while we're at it, I'll just give you

1	a few other documents so you have them if you need	09:06:51
2	them.	09:06:53
3	(Previously marked MPI Exhibit 1001 and	09:06:53
4	Novo Nordisk Exhibit 2054 presented to the witness.)	09:07:25
5	BY MR. WHITE:	09:07:25
6	Q So I've also given you a copy of the '462	09:07:29
7	patent and Dr. Goland's declaration if you need	09:07:33
8	those.	09:07:41
9	Do you have any corrections to your	09:07:45
10	declaration?	09:07:47
11	A I'm not aware of any, as I sit here.	09:07:47
12	Q And so you are -- are you familiar with	09:07:51
13	U.S. Patent 10,335,462?	09:07:56
14	A Yes.	09:08:00
15	Q And we can refer to that as the '462	09:08:00
16	patent?	09:08:03
17	A That's fine.	09:08:03
18	Q So your background is a Ph.D. in	09:08:10
19	economics, right?	09:08:12
20	A Yes, I have a Ph.D. in economics.	09:08:13
21	Q You don't have any training in chemistry	09:08:15
22	or biology.	09:08:19

1	Is that right?	09:08:21
2	A I don't.	09:08:21
3	Q In preparing your declaration, did you	09:08:22
4	speak to any of Novo's experts?	09:08:28
5	A I don't believe so.	09:08:32
6	Q You didn't speak with Dr. Goland; you	09:08:34
7	just read her declaration?	09:08:37
8	A Not in this proceeding.	09:08:39
9	Q Okay. Did you speak with any nonlawyer	09:08:40
10	personnel at Novo Nordisk?	09:08:45
11	A With respect to this case?	09:08:49
12	Q Yes.	09:08:51
13	A No.	09:08:51
14	Q So in your declaration, you make a number	09:09:00
15	of comparisons of market share and sales to other	09:09:02
16	drugs, and I believe your -- I guess the market --	09:09:04
17	the drugs you're comparing are the noninsulin	09:09:08
18	diabetic medications, GLP-1 agonist, DPP-4, SGL-2,	09:09:11
19	and others.	09:09:11
20	Is that right?	09:09:19
21	A It's very close. I think I have an	09:09:19
22	acronym that I use, MNAIDS, I believe it is. It's	09:09:22

1 that set of products. 09:09:28

2 Q Why did you choose that set of products 09:09:28
3 for those comparisons? 09:09:30

4 A A couple of reasons. One, that the -- 09:09:31
5 those documents were consistently identified as the 09:09:34
6 relevant competitive set in the business documents I 09:09:37
7 saw relating to Ozempic. 09:09:40

8 [REDACTED] 09:09:43
9 [REDACTED] 09:09:49
10 [REDACTED]. 09:09:54

11 Q So for the -- in exhibits -- or 09:10:02
12 Appendices E-2, 3, and 4, does the data there for 09:10:06
13 Ozempic include all strength of Ozempic? 09:10:16

14 A So you're asking about Exhibit E- -- 09:10:20
15 Exhibit E as well as E-1, E-2, and E-3? 09:10:30

16 Q Yeah. 09:10:34

17 A For those exhibits, it includes all 09:10:34
18 prescriptions. Actually, technically, in E, it's 09:10:36
19 all dollars. There's another chart later that has 09:10:40
20 the prescriptions. 09:10:44

21 Q So for the chart you have in paragraph 74 09:10:54
22 of your declaration, page 63 -- 09:11:06

1	A	Yes.	09:11:27
2	Q	-- that chart is based on sales data	09:11:27
3		for -- that chart is based on internal Novo	09:11:31
4		reporting.	09:11:34
5		Is that right?	09:11:34
6	A	Yes.	09:11:35
7	Q	And that includes all strengths of	09:11:36
8		Ozempic?	09:11:39
9	A	This chart does, yes.	09:11:39
10	Q	And when I say "all strengths of	09:11:41
11		Ozempic," you understand Ozempic has at this point	09:11:45
12		four strengths?	09:11:48
13	A	That's my understanding.	09:11:49
14	Q	So you have .25 milligrams, 0.5, 1, and	09:11:50
15		then 2 milligrams?	09:11:55
16	A	Yes.	09:11:58
17	Q	So the IQVIA data for the same time	09:12:01
18		period as the chart in Exhibit 74 reports	09:12:05
19			09:12:08
20		Is that right?	09:12:10
21	A	Yes.	09:12:11
22	Q		09:12:12

1	[REDACTED]	09:12:18
2	[REDACTED]	09:12:22
3	A Because IQVIA has no insight into the	09:12:23
4	contracts and the discounting practices that	09:12:32
5	transpire between the branded companies, including	09:12:34
6	Novo Nordisk in this instance, but it's true for	09:12:38
7	essentially all branded companies -- they have no	09:12:41
8	insight into those discounts that are provided to	09:12:43
9	payers by those drug suppliers.	09:12:47
10	And so IQVIA is clear about this, when	09:12:53
11	they report their dollar numbers, they essentially	09:12:59
12	take the number of prescriptions and multiply it by	09:13:05
13	the published average wholesale price, which is	09:13:09
14	essentially also known as the wholesale acquisition	09:13:17
15	cost minus a very small discount that is provided to	09:13:19
16	pharmacies for up-front payments and timely payments	09:13:23
17	and things like that.	09:13:27
18	So that's the discrepancy.	09:13:28
19	Q So if you could turn to paragraph 83 of	09:13:47
20	your declaration.	09:13:49
21	A Yes.	09:13:55
22	Q So in that paragraph, you state that,	09:13:56

1 when the marketed product is an embodiment of the 09:14:02
2 claims and is coextensive with them, there is a 09:14:04
3 presumption of nexus. 09:14:07

4 Do you see that sentence? 09:14:09

5 A I state my understanding of that, yes. 09:14:10

6 Q What is your understanding of what it 09:14:12
7 means to be coextensive? 09:14:14

8 A I'm not a legal expert. It's just a 09:14:16
9 layperson's understanding. But my general 09:14:19
10 understanding of "coextensive" relates to the fact 09:14:21
11 that the basic properties of the product are made 09:14:25
12 possible by the practicing of the patented 09:14:30
13 invention. 09:14:37

14 But again, that's not a legal definition; 09:14:37
15 that's just my working layperson understanding. 09:14:40

16 Q Is Ozempic coextensive with multiple 09:14:51
17 patents? 09:15:04

18 A Well, again, I don't -- I don't determine 09:15:07
19 what coextensive applies to or not. So I don't have 09:15:11
20 an opinion for you. And to my work here, I didn't 09:15:14
21 need to have an understanding of that one way or 09:15:17
22 another. 09:15:19

1	So I don't know for the purposes of this	09:15:20
2	case.	09:15:22
3	Q So you don't have an opinion on whether	09:15:26
4	or not Ozempic is coextensive with the '343 patent?	09:15:28
5	MR. MAY: Objection to form.	09:15:33
6	A I don't have an opinion in this area at	09:15:34
7	all. These are understandings I received from	09:15:36
8	Dr. Goland and from counsel.	09:15:40
9	My understandings for the purposes of my	09:15:42
10	work here are what's memorialized in paragraph 83.	09:15:44
11	Q So you're getting your understanding that	09:15:58
12	Ozempic is coextensive with the '462 patent from	09:16:02
13	Dr. Goland.	09:16:04
14	Is that right?	09:16:05
15	A Yes.	09:16:05
16	Q And you don't have an independent opinion	09:16:06
17	on that aside from her understanding?	09:16:08
18	A I do not.	09:16:12
19	Q Okay. So some of the drivers of Ozempic	09:16:12
20	sales that you reference in your declaration are	09:16:45
21	tolerability.	09:16:47
22	Is that right?	09:16:48

1	A	That's one aspect of demand for Ozempic.	09:16:50
2	Q	And one of the ways Ozempic is tolerable	09:16:56
3		is because it has the 0.25 and 0.5 milligram	09:17:02
4		initiation doses, right?	09:17:06
5		MR. MAY: Objection to form.	09:17:08
6	A	I really don't understand that question	09:17:10
7		as posed.	09:17:12
8	Q	What makes the 1 milligram dose tolerable	09:17:14
9		is the fact that you can titrate up with the	09:17:18
10		0.25 milligram and 0.5 milligram doses, right?	09:17:21
11	A	Right. Well, my understanding is	09:17:25
12		titration is a benefit. But that doesn't in itself	09:17:27
13		completely capture the nature of the tolerability	09:17:31
14		attributes of Ozempic 1 milligram. I mean, it has	09:17:36
15		the tolerability attributes of its relatively	09:17:40
16		acceptable side effect profile when you're on a	09:17:44
17		sustained dose of 1 milligram. That's not a	09:17:48
18		function of being able to titrate up to it.	09:17:50
19	Q	So you need to be able to titrate up to	09:17:56
20		the 1 milligram dose, correct?	09:17:59
21		MR. MAY: Objection, form.	09:18:02
22	Q	You can't start on the 1 milligram dose.	09:18:03

1 Is that your understanding? 09:18:06

2 MR. MAY: Objection to form. 09:18:07

3 A I'm not a clinical expert. So I don't -- 09:18:08

4 those are not my areas of expertise. I know what 09:18:11

5 the label says, but beyond that, I couldn't help 09:18:15

6 you. 09:18:17

7 Q Does the injection pen that is used for 09:18:21

8 Ozempic, does that drive sales? 09:18:25

9 MR. MAY: Objection to form. 09:18:28

10 A I don't think I've -- I didn't study that 09:18:30

11 for the purposes of this case. 09:18:36

12 Q So in paragraph 88, you say that 09:18:38

13 off-label usage of Ozempic is not a significant 09:19:11

14 source of Ozempic 1 milligram prescriptions. 09:19:13

15 Do you see that? 09:19:17

16 A I do. 09:19:17

17 Q So it's your position that Ozempic is not 09:19:17

18 being used in a significant way for weight loss in 09:19:21

19 nondiabetic patients? 09:19:25

20 MR. MAY: Objection to form. 09:19:26

21 A I mean, my opinion is, as I say it there, 09:19:30

22 that to the extent there's off-label usage, it is 09:19:33

1 not a significant source of Ozempic 1.0 milligram
2 prescriptions.

3 Q Did you attempt to quantify the amount of
4 off-label usage there is for the 1 milligram dose?

5 A To the extent I could, yes. There are
6 certain controlled experiments I run in my
7 declaration to try to capture whether it's a
8 meaningful number or not. I mean, I can't get an
9 exact percentage on it. But the hypotheses I run
10 there tell me that it's not significant, whatever
11 the number is.

12 Q So based on your hypotheses, what
13 percentage of the 1 milligram sales are off-label?

14 A It's not a significant number. I don't
15 have the exact number, but it's not a significant
16 number.

17 Q So when you say "not significant," do you
18 mean less than 10 percent?

19 A Probably. When I use "not significant,"
20 I mean that the tests that I ran don't distinguish
21 an effect associated with off-label treatment that
22 is detectible beyond typical statistical noise in

1	the data I was studying.	09:20:44
2	(Previously marked Novo Nordisk Exhibit	09:20:44
3	2518 presented to the witness.)	09:21:03
4	BY MR. WHITE:	09:21:03
5	Q So I've handed you a copy of Exhibit	09:21:22
6	2518. Do you recognize this document?	09:21:28
7	A Yes.	09:21:28
8	Q And that's one of the documents you cite	09:21:29
9	in your declaration?	09:21:30
10	A It is.	09:21:31
11	Q And the title is, Public Interest in the	09:21:34
12	Off-Label Use of Glucagon-Like Peptide 1 Agonists	09:21:37
13	(Ozempic) for Cosmetic Weight Loss: A Google Trends	09:21:42
14	Analysis.	09:21:50
15	A I see that.	09:21:50
16	Q And the second sentence of the abstract	09:21:52
17	states, The off-label use of Ozempic, the brand name	09:21:56
18	for the GLP-1 agonist semaglutide, for cosmetic	09:22:02
19	weight loss has been popularized by social media and	09:22:06
20	celebrity influence.	09:22:10
21	Do you see that?	09:22:11
22	A I see they wrote that.	09:22:11

1	Q	And you agree with that?	09:22:13
2	A	It's their paper. I don't use this paper	09:22:17
3		for the purposes of establishing that.	09:22:20
4		I'm aware Ozempic is out there in the	09:22:23
5		public press and associated with weight loss to some	09:22:27
6		degree. But I'm not sure I would specifically agree	09:22:31
7		or disagree with this characterization.	09:22:33
8	Q	Did you look at any of the social media	09:22:37
9		and celebrity influencing for Ozempic?	09:22:40
10	A	I believe I was watching the Academy	09:22:45
11		Awards the night that Jimmy Kimmel went there. I'm	09:22:47
12		not a follower of influencers, I'm sorry to say.	09:22:54
13		I'd say beyond this paper, not really,	09:22:59
14		no.	09:23:02
15	Q	And when Jimmy Kimmel made his comments	09:23:02
16		at the Oscars, he was talking about using Ozempic	09:23:06
17		for weight loss, right?	09:23:09
18	A	Presumably, yeah. I don't think it would	09:23:10
19		be as funny if it were for type 2 diabetes. But	09:23:16
20		that's just an opinion.	09:23:19
21	Q	If you turn to the second page of Exhibit	09:23:30
22		2518. I'm going to look at the left-hand column,	09:23:33

1	the first full paragraph that begins, Although.	09:23:37
2	A Would you like me to read the paragraph?	09:23:44
3	Q Sure. I just want to ask you about the	09:23:46
4	second sentence, the second and third sentence. But	09:23:48
5	go ahead and read it.	09:23:49
6	A I see that paragraph.	09:24:08
7	Q So the second sentence states that,	09:24:10
8	Nevertheless, the off-label use of Ozempic for	09:24:13
9	cosmetic weight loss has become increasingly	09:24:15
10	publicized and even glorified by social media and	09:24:18
11	numerous media outlets.	09:24:21
12	Do you agree with that?	09:24:23
13	A Well, "increasingly" is one of those very	09:24:27
14	squishy words which I think this paper is rife with.	09:24:32
15	I used this paper mostly for certain dates that	09:24:37
16	things occurred.	09:24:39
17	So has it been increasingly publicized	09:24:42
18	over where it had been historically? Well, of	09:24:46
19	course. Before 2019, it wasn't approved.	09:24:50
20	So I mean, technically, it's increased	09:24:51
21	but it would have to increase?	09:24:54
22	Q So there's a reference in this paragraph	09:24:59

1	to Ozempic parties. Do you know what Ozempic	09:25:02
2	parties are?	09:25:04
3	A I don't.	09:25:04
4	Q So if you look at page 5, and I'm	09:25:17
5	referring to the page numbers on the bottom	09:25:22
6	right-hand side.	09:25:24
7	A I see, okay. Yes.	09:25:24
8	Q So I believe one of the things you cite	09:25:26
9	this paper for is the proposition that certain	09:25:30
10	insurance policies have changed. And this is the	09:25:33
11	right-hand column the bottom of the first partial	09:25:35
12	paragraph.	09:25:39
13	A Yes.	09:25:40
14	Q So why did the insurance policies with	09:25:42
15	respect to the ICD-10 diagnosis codes change?	09:25:47
16	A I don't know explicitly.	09:25:51
17	Q And so why do you point to the insurance	09:25:54
18	codes changing?	09:25:58
19	A Because that is actually something I used	09:25:59
20	to execute one of my data analyses and testable	09:26:02
21	hypotheses.	09:26:06
22	Q There wouldn't be a need to change	09:26:08

1 insurance codes if there wasn't off-label use of the 09:26:10
2 drug? 09:26:14

3 A If there were -- 09:26:14

4 MR. MAY: Objection to form. 09:26:14

5 A If there were -- that's not necessarily 09:26:15
6 true at all, right. Because, you know, payers will 09:26:16
7 change and institute these kinds of regulations if 09:26:20
8 they're concerned that that kind of conduct might 09:26:23
9 develop in the future and may expose them to certain 09:26:26
10 issues. I've seen that done. 09:26:28

11 Q Did you look at the two articles or two 09:26:34
12 references that are footnotes 38 and 39? 09:26:41

13 A I think I did, or someone working with me 09:26:49
14 did. It's United and Medical Mutual, yeah. 09:26:52

15 Q Are you aware of any other insurers that 09:26:58
16 changed their policies with respect to diagnosis 09:27:01
17 codes? 09:27:04

18 A Not as I sit here. But to be clear, 09:27:04
19 United Healthcare is huge, so... 09:27:17

20 Q So you would agree that use of Ozempic 09:27:44
21 for weight loss in nondiabetic patients would fall 09:27:49
22 outside of the scope of the '462 patent? 09:27:53

1	MR. MAY: Objection to form.	09:27:55
2	A Again, I'm not a patented expert. For	09:27:56
3	the purposes of my work, it was my understanding	09:27:59
4	that prescriptions written for Ozempic that were	09:28:03
5	meant to treat for weight issues in nondiabetic	09:28:10
6	patients was not covered by the claims of the '462	09:28:18
7	patent. That was an understanding I had. I believe	09:28:20
8	I say that in my report -- in my declaration.	09:28:23
9	Q And the weight loss benefits of Ozempic	09:28:27
10	are a driver of Ozempic sales.	09:28:29
11	Is that right?	09:28:32
12	A The weight loss aspects of Ozempic help	09:28:37
13	drive demand for the product as used in its approved	09:28:41
14	indication. That's my understanding.	09:28:47
15	Q Are you familiar with a document called	09:29:16
16	the Orange Book?	09:29:17
17	A Yes.	09:29:18
18	Q Do you know how many patents are listed	09:29:18
19	for Ozempic in the Orange Book?	09:29:21
20	MR. MAY: Objection to form.	09:29:24
21	A Not from memory.	09:29:24
22	Q Did you look at that issue?	09:29:26

1	A	At some point I would have -- for the	09:29:29
2		purposes of this case?	09:29:32
3	Q	Yeah.	09:29:32
4	A	I'm not sure.	09:29:33
5	Q	So are you aware that there are two	09:30:11
6		patents, the '122 and '343 patent that relate to the	09:30:12
7		compound semaglutide?	09:30:16
8	A	Very loosely speaking, yes.	09:30:17
9	Q	Could those patents be coextensive with	09:30:20
10		Ozempic?	09:30:27
11		MR. MAY: Objection to form.	09:30:28
12	A	Again, that's not my area of expertise,	09:30:28
13		so I don't know how to answer that question. I	09:30:31
14		don't bring any expertise to that issue that would	09:30:33
15		help answer that question.	09:30:35
16	Q	So do you have a view on whether the	09:30:42
17		properties of the semaglutide molecule itself are	09:30:45
18		what drive sales?	09:30:47
19		MR. MAY: Objection to form.	09:30:49
20	A	My understanding is that the therapeutic	09:30:52
21		benefits and profile of Ozempic derive from	09:30:59
22		semaglutide, and that, in the context of my	09:31:03

1 declaration here, the use of semaglutide at

09:31:06

2 1 milligram to treat diabetes was the focus of, you

09:31:10

3 know, the part of the invention where I needed to

09:31:15

4 understand that role in driving demand. That's what

09:31:18

5 I did.

09:31:21

6 (Previously marked Novo Nordisk Exhibit

09:31:21

7 2330 presented to the witness.)

09:32:56

8 BY MR. WHITE:

09:32:56

9 Q So I have given you a copy of what has

09:33:12

10 been marked as Exhibit 2330. I think the way it

09:33:14

11 printed the page numbers are on the left-hand side?

09:33:29

12 A In very small print.

09:33:38

13 Q Very small print.

09:33:39

14 A Okay. I can see them.

09:33:41

15 Q So if we you could turn to page 5,
16 please. Do you see on page 5 on the right side,

09:33:49

17 there's a box that talks about [REDACTED]?

09:34:08

18 A It talks about [REDACTED]. But
19 I do see that.

09:34:15

09:34:17

20 Q Do you have an understanding of what

09:34:18

21 [REDACTED] refers to?

09:34:22

22 A I obviously didn't write this. Obviously

09:34:26

1 [REDACTED] 09:34:31

2 [REDACTED] 09:34:34

3 [REDACTED] 09:34:38

4 [REDACTED] 09:34:42

5 [REDACTED] 09:34:47

6 [REDACTED] 09:34:50

7 [REDACTED]. 09:34:54

8 Q If you could turn to page 30. 09:35:07

9 A Yes. 09:35:27

10 Q So on page 30, there are some bar charts, 09:35:28

11 waves 1, 2, and 3. 09:35:33

12 Do you know what 1, 2, and 3 refer to? 09:35:36

13 A I believe -- I'm not sure it's specified 09:35:39

14 in this document. But given the work I've done in 09:35:42

15 this industry, I'm pretty sure I know what it means. 09:35:46

16 Q And what does that mean? 09:35:49

17 A Usually, waves refer to a survey and 09:35:51

18 survey format, typically of physicians, but 09:35:58

19 sometimes of patients as well. I believe this one 09:36:04

20 is of physicians. Where a very similar note, though 09:36:06

21 not identical survey, is posed to a random selection 09:36:12

22 of physicians at different points in time, and the 09:36:17

1 waves each represent a sequential point in time. 09:36:22

2 Q And so what's on -- the charts on page 30 09:36:29

3 are showing [REDACTED] 09:36:33

4 [REDACTED] 09:36:36

5 Is that right? 09:36:37

6 A Oh, boy. 09:36:39

7 Q I think that's in the blue line. 09:36:41

8 A I see that. But when you read these 09:36:43

9 surveys, what's usually most effective is to read 09:36:45

10 the -- typically at the very bottom of the chart is 09:36:49

11 the actual question asked. And it is there, but 09:36:51

12 it's very small. I actually, even with my 09:36:55

13 glasses -- let me just check this. Oh, in this 09:37:01

14 instance, that's not actually the question. 09:37:05

15 I certainly see that they're looking at 09:37:07

16 [REDACTED] 09:37:12

17 [REDACTED]. 09:37:17

18 I should be more specific. 09:37:23

19 Q [REDACTED] 09:37:27

20 [REDACTED] 09:37:31

21 [REDACTED] 09:37:32

22 A [REDACTED] 09:37:37

1		09:37:38
2	Q Set that aside.	09:37:55
3	So if you could look at Appendix K to	09:37:57
4	your declaration.	09:39:00
5	A Yes.	09:39:21
6	Q So Exhibit K -- so these are the	09:39:24
7	promotional expenditures from IQVIA.	09:39:29
8	Is that right?	09:39:33
9	A As estimated by IQVIA, yes.	09:39:34
10	Q Do you have a sense for how accurate	09:39:37
11	IQVIA's promotional expenditures are?	09:39:40
12	A Yes.	09:39:44
13	Q What is your understanding?	09:39:44
14	A They tend to fairly systematically	09:39:45
15	understate actual expenditures, but it's done in a	09:39:48
16	manner that's consistent across brands.	09:39:52
17	Q And you did not look at Novo's actual	09:40:05
18	internal promotional expenses, right?	09:40:08
19	A I believe I saw some profit and loss	09:40:14
20	statements from Novo that would have had those line	09:40:17
21	items in them. But for the purposes of my work, I	09:40:21
22	didn't need those.	09:40:24

1	Q	So if you could turn to paragraph 120 of	09:41:05
2		your declaration.	09:41:10
3	A	Yes.	09:41:36
4	Q	So this paragraph addresses the issue of	09:41:36
5		so-called blocking patents, right?	09:41:39
6	A	That's what this paragraph relates to,	09:41:41
7		yes.	09:41:43
8		(Previously marked Novo Nordisk Exhibit	09:41:43
9		2487 presented to the witness.)	09:42:06
10		BY MR. WHITE:	09:42:06
11	Q	So I've given you a copy of U.S. Patent	09:42:15
12		8,129,343. I believe this one actually does not	09:42:18
13		have the premarked exhibit numbers on it, but we'll	09:42:23
14		replace that one with the one marked. I believe we	09:42:27
15		have a marked copy of this already.	09:42:32
16	A	I think it's 2487.	09:42:34
17	Q	So if you look at Figure 5 in paragraph	09:42:46
18		120 of your declaration.	09:42:52
19	A	Yes.	09:43:02
20	Q	It's your position that prior to March of	09:43:02
21		2012, there were no potential blocking issues.	09:43:08
22		Is that right?	09:43:14

22 | you investigate any other patents that might -- | 09:44:25

1 patents or patent applications that might present

09:44:31

2 potential blocking issues?

09:44:32

3 A I did not.

09:44:36

4 MR. MAY: Can we go off for one second?

09:45:56

5 (A discussion was held off the record.)

09:46:02

6 MR. MAY: We can go back on.

09:46:02

7 BY MR. WHITE:

09:46:08

8 Q Are you aware of Novo having ever

09:46:17

9 licensed any of its patents for Ozempic -- licensed

09:46:19

10 out any of its patents for Ozempic?

09:46:24

11 MR. MAY: Objection to form.

09:46:26

12 A I'm not aware one way or the other.

09:46:30

13 MR. WHITE: This might be a good time for

09:46:44

14 a quick break.

09:46:45

15 (Recess from 9:46 a.m. until 10:02 p.m.)

10:02:29

16 BY MR. WHITE:

10:02:29

17 Q So if you could look at Appendix I,

10:02:35

18 please, to your declaration.

10:02:38

19 A Yes.

10:02:49

20 Q So this Appendix I was one of the

10:02:49

21 analyses you did to support the view that there was

10:02:52

22 no significant off-label use of Ozempic 1 milligram.

10:02:54

1	Is that right?	10:02:58
2	A That's part of what this chart is doing,	10:03:03
3	yes.	10:03:05
4	Q So one of your positions is that	10:03:10
5	following the approval of Wegovy, there was not a	10:03:15
6	change in the trend for the 1 milligram Ozempic	10:03:21
7	dose, and that would suggest no significant	10:03:25
8	off-label use.	10:03:28
9	Is that right?	10:03:29
10	A It's consistent with no significant	10:03:30
11	off-label use.	10:03:31
12	Q Why would you expect the approval of	10:03:32
13	Wegovy to change the trend if there were off-label	10:03:36
14	use?	10:03:44
15	A Well, I think that hypothesis is to some	10:03:45
16	degree also put out in the article we posited -- we	10:03:48
17	looked at earlier, Exhibit 2518. The idea that the	10:03:52
18	approval of Wegovy, which is also semaglutide, for a	10:03:57
19	weight loss indication and the fact that Ozempic is	10:04:02
20	also semaglutide would indicate that to the extent	10:04:07
21	people might want to work with Ozempic in that	10:04:12
22	context, that they would understand that that active	10:04:16

1 ingredient had been actually approved for that, 10:04:19

2 although this product itself had not. 10:04:21

3 Q Did you look at any of the different 10:04:27

4 policies for insurers for paying for Wegovy versus 10:04:29

5 Ozempic? 10:04:33

6 A For the purposes of this case, I don't 10:04:37

7 believe so. 10:04:55

8 Q If you could turn to paragraph 82 of your 10:04:55

9 declaration. 10:04:58

10 So in that paragraph, you state that, I 10:05:14

11 understand from Dr. Goland that Ozempic has several 10:05:16

12 important attributes, namely its efficacy in 10:05:20

13 treating type 2 diabetes (both through reduction of 10:05:24

14 A1c and weight loss), its ability to treat type 2 10:05:28

15 diabetes without creating the risk of certain side 10:05:34

16 effects, and its improved patient adherence. 10:05:36

17 Do you see that? 10:05:40

18 A Yes. 10:05:40

19 Q Do you have an opinion as to -- or are 10:05:50

20 you offering an opinion as to whether the efficacy 10:05:54

21 in treating type 2 diabetes is associated with the 10:05:56

22 1 milligram dose? 10:05:59

1 MR. MAY: Object to the form. 10:06:01

2 A Well, in terms of the clinical efficacy 10:06:04
3 of the 1 milligram dose, that's a clinical question, 10:06:09
4 and as I do here, I rely on Dr. Goland for that. 10:06:12

5 In terms of the magnitude of the demand 10:06:15
6 for the product itself, that part, I am providing 10:06:17
7 analysis of. 10:06:22

8 Q So how much of the magnitude of the 10:06:26
9 demand for the product is based on efficacy? 10:06:29

10 A I can't break it down on a percentage 10:06:33
11 basis. I mean, the way that works is, I see the 10:06:36
12 demand for -- here for 1 milligram. 10:06:39

13 I have seen some studies that are cited 10:06:43
14 in my report that recognize that both Alc and weight 10:06:45
15 loss parameters are better on average for patients 10:06:53
16 at 1 milligram than they are at 0.5. But in terms 10:06:59
17 of isolating an exact percentage, that just doesn't 10:07:03
18 lend itself to that kind of analysis. 10:07:08

19 Q Is the ability to dose Ozempic once 10:07:12
20 weekly an important driver of Ozempic sales? 10:07:17

21 A I'm not sure I understand your question 10:07:23
22 as to "the ability." 10:07:26

1	Q	Is the fact that Ozempic is dosed once	10:07:28
2		weekly a driver of sales?	10:07:31
3	A	Yes.	10:07:37
4	Q	Is the injection device that is used with	10:07:40
5		Ozempic a driver of sales?	10:07:43
6		MR. MAY: Objection to form.	10:07:45
7	A	I think that one is a little trickier.	10:07:49
8		And again, I didn't need to address that here, so	10:07:53
9		I'm not sure.	10:07:55
10		Obviously, I do note that there are	10:07:56
11		surveys, and this is in my declaration, that by and	10:08:00
12		large, patients would prefer oral medications to	10:08:05
13		injections, unsurprisingly. And so in that sense,	10:08:08
14		you know, having an injectable, on that one	10:08:14
15		dimension compared to orals, can be a setback.	10:08:16
16		But on the other hand, that's part of why	10:08:23
17		it's -- as I understand it, it can be prescribed	10:08:26
18		once weekly instead of once daily, and it has a	10:08:28
19		lower strength.	10:08:33
20	Q	Does the fact that there's a 0.25	10:08:38
21		milligram and 0.5 milligram dose for Ozempic, does	10:08:40
22		that drive sales?	10:08:44

1	A	I didn't need to study that. So I don't	10:08:46
2		have an answer for you.	10:08:49
3	Q	I believe we -- I may have asked you this	10:09:16
4		earlier. I just want to make sure I have it.	10:09:19
5		You don't have an opinion as to whether	10:09:21
6		or not the '343 patent that we looked at is	10:09:23
7		coextensive with Ozempic?	10:09:26
8	MR. MAY:	Objection to form.	10:09:29
9	A	Right. As an expert, I'm not qualified	10:09:31
10		to determine co- -- is this a word? --	10:09:33
11		coextensivity. It is now. But regardless, I	10:09:39
12		wouldn't have needed that understanding from someone	10:09:43
13		to complete my work.	10:09:45
14	MR. WHITE:	I don't have anything	10:09:52
15		further.	10:09:54
16	MR. MAY:	Nothing further from us.	10:09:57
17	COURT REPORTER:	Anything else for the	10:10:00
18		record?	10:10:01
19	MR. WHITE:	We marked it confidential,	10:10:03
20		right?	10:10:04
21	MR. BAUGHMAN:	I just want to confirm on	10:10:04
22		the record that we've marked the deposition	10:10:06

1 confidential under the protective order. Thank you. 10:10:08

2 (Transcript orders discussed.) 10:10:10

3 COURT REPORTER: Thank you. That's all I 10:10:38

4 need. 10:10:39

5 (Off the record at 10:10 a.m.)

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1 CERTIFICATE OF SHORTHAND REPORTER - NOTARY PUBLIC

2
3 I, Lisa V. Feissner, RDR, CRR and Notary
4 Public in and for the District of Columbia, do
5 hereby certify:
6

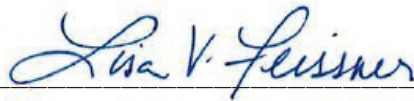
7 That CHRISTOPHER A. VELLTURO, Ph.D., the
8 witness whose deposition is hereinbefore set forth,
9 was duly sworn by me before the commencement of such
10 deposition, and that such deposition was taken
11 before me and is a true record of the testimony
12 given by such witness.
13

14 I further certify that the adverse party,
15 NOVO NORDISK A/S, was represented by counsel at the
16 deposition.
17

18 I further certify that the deposition of
19 CHRISTOPHER A. VELLTURO, Ph.D., occurred at the
20 offices of PERKINS COIE LLP on WEDNESDAY, APRIL 24,
21 2024, commencing at 9:07 and concluding at 10:10
22 a.m.

1 I further certify that I am not related
2 to any of the parties to this action by blood or
3 marriage, I am not employed by or an attorney to any
4 of the parties to this action, and that I am in no
5 way interested, financially or otherwise, in the
6 outcome of this matter.

7
8 IN WITNESS WHEREOF, I have hereunto set
9 my hand this 30th day of APRIL, 2024.

10
11 
12

13 NOTARY PUBLIC IN AND FOR

14 THE DISTRICT OF COLUMBIA

15 MY COMMISSION EXPIRES JUNE 15, 2028
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