Page 1	Page 3
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE	1 REMOTE APPEARANCES (CONTINUED):
BEFORE THE PATENT TRIAL AND APPEAL BOARD	² FOR MYLAN:
	3 KATTEN MUCHIN ROSENMAN LLP
MYLAN PHARMACEUTICALS, INC.,)	4 JITENDRA MALIK, PH.D., ESQUIRE
Petitioner,) IPR 2020-00040	5 550 South Tryon Street, Suite 2900
v.) U.S. Patent No.	6 Charlotte, North Carolina 28202
) 7,326,708	7 704-344-3185
MERCK SHARP & DOHME CORP,)	8 jitty.malik@katten.com
Patent Owner.)	9 -AND-
)	10 MYLAN, INC.
	PRESTON IMPERATORE, IN-HOUSE COUNSEI
DEPOSITION OF MUKUND CHORGHADE, PH.D.	12 1000 Mylan Boulevard
APPEARING REMOTELY	13 Canonsburg, Pennsylvania 15317
	14 preston.imperatore@mylan.com
August 6, 2020	¹⁵ -AND-
9:32 a.m.	THE STATE OF THE S
Reported by: Lori J. Goodin, RPR, CLR, CRR,	WINSTON & STICEWIN, EE
RSA, California CSR #13959	Enternati B. Corleit, Esquite
Rotty California GOR #13707	18 1901 L Street, Northwest
DIGITAL EVIDENCE GROUP	19 Washington, D.C. 20036
1730 M Street, NW, Suite 812	20 202-282-5757
Washington, D.C. 20036	zcohen@winston.com
(202) 232-0646	22
Page 2	Page 4
1 REMOTE APPEARANCES:	1 REMOTE APPEARANCES (CONTINUED)
FOR MERCK:	2
3 WILLIAMS & CONNOLLY LLP	³ FOR TEVA/WATSON:
4 STANLEY E. FISHER, ESQUIRE	4 GOODWIN PROCTER LLP
, ,	4 GOODWIN PROCTER LLP
5 SHAUN P. MAHAFFY, ESOUIRE	5 EMILY L. RAPALINO, ESQUIRE
SHAONT. MAHATTI, ESQUIRE	GOODWINTROCTEREDI
6 ALEXANDER S. ZOLAN, ESQUIRE	5 EMILY L. RAPALINO, ESQUIRE
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005 10 202-434-5000	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005 10 202-434-5000 11 sfisher@wc.com	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005 10 202-434-5000 11 sfisher@wc.com 12 smahaffy@wc.com	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S:
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005 10 202-434-5000 11 sfisher@wc.com 12 smahaffy@wc.com 13 azolan@wc.com	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG
6 ALEXANDER S. ZOLAN, ESQUIRE 7 ANTHONY SHEH, ESQUIRE 8 725 Twelfth Street, Northwest 9 Washington, D.C. 20005 10 202-434-5000 11 sfisher@wc.com 12 smahaffy@wc.com 13 azolan@wc.com 14 asheh@wc.com	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Vashington, D.C. 20005 202-434-5000 sfisher@wc.com smahaffy@wc.com azolan@wc.com asheh@wc.com -AND-	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Vashington, D.C. 20005 202-434-5000 sfisher@wc.com smahaffy@wc.com azolan@wc.com -AND- U.S. MERCK CORPORATE HEADQUARTERS	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Vashington, D.C. 20005 202-434-5000 sfisher@wc.com smahaffy@wc.com azolan@wc.com asheh@wc.com LUS. MERCK CORPORATE HEADQUARTERS GERARD DEVLIN, IN-HOUSE COUNSEL	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE 15 20 Commerce Drive
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Vashington, D.C. 20005 202-434-5000 sfisher@wc.com smahaffy@wc.com azolan@wc.com azolan@wc.com LS. MERCK CORPORATE HEADQUARTERS GERARD DEVLIN, IN-HOUSE COUNSEL 2000 Galloping Hill Road	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE 15 20 Commerce Drive 16 Cranford, New Jersey 07016
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE BY Test of the street, Northwest Washington, D.C. 20005 CO2-434-5000 Sfisher@wc.com Smahaffy@wc.com Azolan@wc.com U.S. MERCK CORPORATE HEADQUARTERS GERARD DEVLIN, IN-HOUSE COUNSEL COMPANY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE COUNSEL COUN	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE 15 20 Commerce Drive 16 Cranford, New Jersey 07016 17 908-518-6341
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Vashington, D.C. 20005 202-434-5000 sfisher@wc.com smahaffy@wc.com azolan@wc.com AND- U.S. MERCK CORPORATE HEADQUARTERS GERARD DEVLIN, IN-HOUSE COUNSEL 2000 Galloping Hill Road	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE 15 20 Commerce Drive 16 Cranford, New Jersey 07016 17 908-518-6341 18 tvanbuskirk@lernerdavid.com
ALEXANDER S. ZOLAN, ESQUIRE ANTHONY SHEH, ESQUIRE ANTHONY SHEH, ESQUIRE Test of the street of the	5 EMILY L. RAPALINO, ESQUIRE 6 100 Northern Avenue 7 Boston, Massachusetts 02210 8 617-570-1938 9 erapalino@goodwinlaw.com 10 11 FOR DR. REDDY'S: 12 LERNER DAVID LITTENBERG 13 KRUMHOLZ & MENTLIK 14 TEDD W. VAN BUSKIRK, ESQUIRE 15 20 Commerce Drive 16 Cranford, New Jersey 07016 17 908-518-6341 18 tvanbuskirk@lernerdavid.com



		Page 5		Page 7
1	INDEX TO EXAM	_	1	Thursday, August 6, 2020, 9:32 a.m.
2	INDEA TO EARIN	III/IIIIII	2	PROCEEDINGS
3	WITNESS: MUKUND CHO	RGHADE PH D	3	TROCEEDINGS
4	WITHESS. WOROND CITE	TOTH DE, TH.D.	4	THE VIDEOGRAPHER: We are now on the
5	EXAMINATION BY	PAGE	5	record. This is Video Number 1 in the video
6	MR. FISHER	8 8	6	recorded deposition of Dr. Mukund Chorghade,
7	DR. MALIK	291	7	taken in the matter of Mylan Pharmaceuticals,
8	MR. FISHER	312	8	Inc., Petitioner, v. Merck Sharp & Dohme
9	* * *	312	9	Corp., Patent Owner.
10			10	Pending before the United States
11	INDEV TO EVUIT	DITC	11	Patent and Trademark Office before the Patent
12	INDEX TO EXHIBITS MUKUND CHORGHADE, PH.D.		12	and Trial Appeal Board, IPR 2020-00040 for
13		TADE, PH.D.	13	patent Number 7,326,708.
14	Mylan v. Merck	1020	14	•
	Tuesday, August 6, 2		15	This deposition is being held by
15 16	Lori J. Goodin, RPR, C			Zoom video remote conferencing and the
	RSA, California CSR	#1 <i>5</i> 939	16 17	physical recording is taking place in
17	NA PAGE DESCRIPTION	N. D. CE		Culpeper, Virginia.
18	MARKED DESCRIPTIO		18	Today's date is August 6, 2020, and
19	Exhibit 1001 U.S. patent 7,3		19	the time on the video screen is 9:32 a.m.
20	Exhibit 1002 Dr. Chorghado		20	My name is Daniel Holmstock. I am
21	Exhibit 1003 Dr. Chorghade		21	the legal videographer, from Digital Evidence
22	Exhibit 1004 WO 03/004498	3 A1 55	22	Group. The court reporter today is Lori
		Page 6		Page 8
1	INDEX TO EXHIB		1	Goodin, also in association with Digital
2	MUKUND CHORG	HADE, PH.D.	2	Evidence Group.
3	Mylan v. Merck Tuesday, August 6, 2	020	3	All parties to this deposition are
	Lori J. Goodin, RPR, C		4	appearing remotely and have agreed to the
4	RSA, California CSR		5	witness being sworn in remotely. And due to
5	MARKED DECORPTION	N DAGE	6	the nature of remote reporting, please pause
6	MARKED DESCRIPTION		1	
7	Evhibit 1005 Brittain referen		7	briefly before speaking to ensure all parties
7 8	Exhibit 1005 Brittain referer Exhibit 1006 Bastin, et al. re	ice 201	7 8	briefly before speaking to ensure all parties are heard completely.
8 9	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9	190 199,871 292		are heard completely.
8 9 10	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3	190 190 190 190 190 190 190 190 190 190	8	are heard completely. Counsel your appearances will be
8 9	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T.	nce 201 ference 190 99,871 292 09,724 96 he Handbook	8	are heard completely. Counsel your appearances will be noted on the stenographic record.
8 9 10	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T. of Pharmaceutical S	10c 201 190 199,871 292 109,724 96 10c Handbook 10c 10c 10c 10c 10c 10c 10c 10c 10c 10c	8 9 10	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court
8 9 10 11 12 13	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T. of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1664	10c 201 10c 190 199,871 292 109,724 96 10c Handbook 10c 129 120 A1 170	8 9 10 11	are heard completely. Counsel your appearances will be noted on the stenographic record.
8 9 10 11	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T. of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1666 Exhibit 2045 Drug Discover	10c 201 10ference 190 199,871 292 109,724 96 10c Handbook 10c 129,696 129 120 A1 170 129 and Development	8 9 10 11 12	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court reporter will now administer the oath. * * *
8 9 10 11 12 13 14	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T. of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1666 Exhibit 2045 Drug Discover Volume II	10c 201 10ference 190 199,871 292 109,724 96 10c Handbook 10c 29,696 129 120 A1 170 120 y and Development 1220	8 9 10 11 12 13	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court reporter will now administer the oath. * * * Whereupon,
8 9 10 11 12 13	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T. of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1664 Exhibit 2045 Drug Discover Volume II Exhibit 2046 Crystalline Sol	100 201 190 190 199,871 292 199,724 96 199,696 129 1420 A1 170 170 170 170 170 170 170 170 170 17	8 9 10 11 12 13 14	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court reporter will now administer the oath. * * * Whereupon, MUKUND CHORGHADE, PH.D.,
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8 9 10 11 12 13 14 15 16	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1664 Exhibit 2045 Drug Discover Volume II Exhibit 2046 Crystalline Sol Exhibit 2047 2003 article in & Design, Vol. 3, N Exhibit 2048 U.S. patent 7,0 Exhibit 2049 Bernstein artic	100 201 190 190 199,871 292 109,724 96 100 100 100 100 100 100 100 100 100 10	8 9 10 11 12 13 14 15	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court reporter will now administer the oath. * * * Whereupon, MUKUND CHORGHADE, PH.D., a witness called for examination, having been
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8 9 10 11 12 13 14 15 16 17 18 19	Exhibit 1006 Bastin, et al. re Exhibit 1007 U.S. patent 6,9 Exhibit 2032 U.S. patent 8,3 Exhibit 2042 Chapter 6 of T of Pharmaceutical S Exhibit 2043 U.S. patent 8,3 Exhibit 2044 WO 2012-1664 Exhibit 2045 Drug Discover Volume II Exhibit 2046 Crystalline Sol Exhibit 2047 2003 article in & Design, Vol. 3, N Exhibit 2048 U.S. patent 7,0 Exhibit 2049 Bernstein artic Exhibit 2050 Controlling the Form Obtained, Cha	rice 201 reference 190 99,871 292 09,724 96 he Handbook alts 106 29,696 129 420 A1 170 y and Development 220 ids 233 Crystal Growth umber 6 243 56,942 252 le 262 Polymorphic pter 3 271 ronically	8 9 10 11 12 13 14 15 16 17 18 19 20	are heard completely. Counsel your appearances will be noted on the stenographic record. At this point now, our court reporter will now administer the oath. * * * Whereupon, MUKUND CHORGHADE, PH.D., a witness called for examination, having been first duly sworn, was examined and testified as follows: * * * EXAMINATION



	Page 9		Page 11
1	pronounce that correctly?	1	you see your declaration and your CV and some of
2	A. Yes, you did. Thank you.	2	the other exhibits that you have submitted.
3	Q. Okay, good morning.	3	There should be about 16 tabs.
4	Could you state your full name and	4	A. Yes. So, there is a United States
5	address for the record, sir.	5	patent '708. There is my declaration. There is
6	A. Full name, Mukund Shanker Chorghade.	6	a patent '498. There are some research papers.
7	Address, 7 Jones Court, Hillsboro, New Jersey	7	Q. Okay. You don't so, what I have
8	08844.	8	done and I will represent to you and hopefully
9	Q. Is there any reason that you cannot	9	the copying job made it there I haven't had
10	testify truthfully and accurately today?	10	the opportunity to flip through that binder
11	A. There is no reason.	11	myself given the COVID issues.
12	Q. Okay. Before today's deposition, I	12	A. There are 16 tabs over here, yes.
13	corresponded with Merck Mylan's counsel,	13	Q. Right. And so, you can keep that
14	Mr or Dr. Malik, about shipping a box of	14	out in front of you. We may be discussing some
15	materials related to the deposition to you.	15	of the exhibits in that binder today.
16	Do you have that box in your office?	16	I will tell you that what remains in
17	A. Yes, I do.	17	the box are a number of documents that we may or
18	Q. Okay. My understanding is that it	18	may not discuss today.
19	is not yet opened or has it been opened?	19	And, what I have done is numbered
20	A. That is correct, yes.	20	the documents in the box. They should be in
21	Q. It has not yet been opened?	21	Redwelds, something like 1 to 30, or 1 to 32.
22	A. It has not been opened.	22	If we happen to discuss one of those
	Page 10		Page 12
1	Q. Okay.	1	documents, I will ask you at that time to pull
2	A. No.	2	out, you know, Redweld Number 3 or whatever it
3	Q. If you have something to open it	3	may be, and we can discuss the document at that
4	with, would you go ahead and open the box?	4	point.
5	DR. MALIK: Stan, may I do so, too?	5	We will also have the documents up
6	MR. FISHER: Absolutely.	6	on the screen. I do know I'm, I'm old school.
7	BY MR. FISHER:	7	I like to see the documents in paper. They will
8	Q. And so when you have it open, you	8	be on the screen for you. It will be up to you
9	can take the binder that is in the box out but	9	what you use. Okay?
10	leave the other tabbed folders in there.	10	A. Thank you. So, bear with me for
11	A. Are you requesting that I pull out	11	five seconds while I pull up a chair to rest this
12	this black binder?	12	on by my side.
13	Q. Yes, sir.	13	MR. FISHER: I had to do the same
14	A. I have just done that.	14	thing myself. No problem.
15	Q. Excellent. So, what I have tried to	15	THE WITNESS: So, I have just pulled
16	do and hopefully the shipping has worked out, is	16	up a chair to rest this binder and I can pull
17	put in a binder your declaration, in other words	17	out anything I want.
	your testimony that you have already submitted in	18	(Exhibit Number 1002
18		1 10	
18 19	the matter, along with the exhibits that you	19	marked for identification.)
	the matter, along with the exhibits that you attached to your declaration.	20	BY MR. FISHER:
19	_		*

	Page 13		Page 15
1	binder you pulled out.	1	A. At that point I was a supervisor.
2	A. Yes, it is here.	2	Q. Okay. And what is a salt screen?
3	Q. Okay, all right. So, that is there	3	A. A salt screen is basically something
4	for your reference to the extent you need it.	4	that is done when you screen a particular salt
5	Sir, you provide background on	5	and make screen a particular amino acid, and
6	yourself in your declaration, right?	6	test it against various salts.
7	A. Correct.	7	And particular aspect of the testing
8	Q. You are an expert in medicinal	8	is whether these materials are going to be
9	chemistry; is that right?	9	crystalline, or whether they are going to be
10	A. Yes, I am.	10	easily hygroscopic or not.
11	Q. What is medicinal chemistry?	11	So, you determine the most optimum
12	A. Medicinal chemistry is basically the	12	favorable salt for your applications.
13	science of discovering new drugs through studying	13	Q. So, in the first instance, you are
14	their structure activity relationships.	14	checking to see whether, if it is a basic drug,
15	And then developing the drug.	15	the acid counterion forms a salt, right?
16	Q. And, structure activity	16	A. This is correct.
17	relationships, is that SAR?	17	Q. And then if it forms a salt, you are
18	A. Correct.	18	evaluating the properties of the salt. Right?
19	Q. Okay. You provide in your	19	A. This is correct.
20	declaration a fairly extensive background on	20	Q. And so you indicated that you
21	various medicinal chemistry related issues,	21	performed many salt screens.
22	right?	22	How frequently prior to 2014, the
	•		
	Page 14		Page 16
1	A. Yes, I do.	1	last time that you have done it, were you
2	Q. Now, I didn't see in the background	2	performing salt screens?
3	section on your experience a reference to salt	3	A. There were always at least one per
4	formation in your background.	4	drug that we worked on all through my career.
5	Did I miss that?	5	Q. Uh-huh. And so, would you be the
6	A. That is not expertise that is	6	one performing the salt screens if you were
7	typically communicated. That comes under the	7	involved in the project in developing a drug?
8	whole development experience scenario.	8	Or would it be somebody else that
9	Q. Okay. So, you don't specifically	9	you worked with?
10	reference in your declaration salt formation, is	10	A. In the early part of my career, it
11	that right, as part of your background?	11	would have been me. In the later part when I
12	A. This is correct.	12	rose through the ranks in the company I was more
13	Q. Have you ever performed a salt	13	directional. I was more of a director than
14	screen?	14	handling it myself.
15	A. Many times.	15	Q. Okay. When you or your colleagues
16	Q. Okay. When was the last time you	16	were performing the salt screens that you had
17	performed a salt screen?	17	personal involvement in, what did you do if a
18	A. The last time would have been around	18	particular drug didn't form a salt with a
19	2014 or 2015.	19	counterion?
20	Q. And was it you personally doing the	20	A. Our basic job was to explore through
20			
21	salt screen, or were you supervising others in 2014?	21 22	the screens the most optimal counterion. And, there have been there is

	Dawa 17		Down 10
	Page 17		Page 19
1	knowledge of several bases which can form a	1	Q. I see.
2	counterion with an acid. And several acids which	2	A. But, not at the same time.
3	form a counterion with the base.	3	Q. I see, okay.
4	Q. Okay. So, if you were running a	4	So, if the drug was a basic drug,
5	screen and the drug in question didn't form a	5	you would look at the inorganic acids as the
6	salt with a counterion, would you move on to the	6	potential counterion?
7	next counterion that to form a salt? Is that	7	A. This is correct.
8	the way it progressed?	8	Q. And did you have situations in your
9	DR. MALIK: Objection, foundation.	9	experience where you screened the eight to ten
10	THE WITNESS: The way we progressed	10	inorganic acids and you didn't get salt formation
11	is to look at the salt formation and see what	11	or one or more of the acids?
12	the nature of that salt is. And then move on	12	A. The typical five inorganic acids
13	if necessary.	13	would always give a salt formation.
14	BY MR. FISHER:	14	And, we have never encountered a
15	Q. Okay. Now when you perform salt	15	case where there was no salt formation.
16	screens, and I'm talking about you, being you,	16	Q. Okay. And what were the
17	your team on the various projects you worked on,	17	Do you remember offhand what the
18	how many counterions did you typically evaluate	18	five inorganic acids that you would typically
19	with a particular drug in question? Was it two,	19	screen were?
20	three, a dozen?	20	A. Yes, I do. It was hydrochloric
21	Just give me some sense of how big	21	acid, sulfuric acid. Phosphoric acid was a
22	the screens were.	22	obvious one. At times it was nitric acid. And
	Page 18		Page 20
1	Page 18 A. In the early part of my career, we	1	Page 20 then finally we always used to use something
1 2	_	1 2	_
	A. In the early part of my career, we		then finally we always used to use something
2	A. In the early part of my career, we used to typically screen five inorganic acids.	2	then finally we always used to use something typically like benzene sulfonic acid.
2	A. In the early part of my career, we used to typically screen five inorganic acids. We would screen typically about eight to 10	2	then finally we always used to use something typically like benzene sulfonic acid. Q. Okay. Do you consider yourself an
2 3 4	A. In the early part of my career, we used to typically screen five inorganic acids. We would screen typically about eight to 10 inorganic bases.	2 3 4	then finally we always used to use something typically like benzene sulfonic acid. Q. Okay. Do you consider yourself an expert in salt selection?
2 3 4 5	A. In the early part of my career, we used to typically screen five inorganic acids. We would screen typically about eight to 10 inorganic bases. And that was always our first, first	2 3 4 5	then finally we always used to use something typically like benzene sulfonic acid. Q. Okay. Do you consider yourself an expert in salt selection? A. It is part of my general expertise
2 3 4 5	A. In the early part of my career, we used to typically screen five inorganic acids. We would screen typically about eight to 10 inorganic bases. And that was always our first, first shot at the problem.	2 3 4 5	then finally we always used to use something typically like benzene sulfonic acid. Q. Okay. Do you consider yourself an expert in salt selection? A. It is part of my general expertise as in drug discovery and development, yes.
2 3 4 5 6 7	A. In the early part of my career, we used to typically screen five inorganic acids. We would screen typically about eight to 10 inorganic bases. And that was always our first, first shot at the problem. Q. And, so just to make sure I have	2 3 4 5 6	then finally we always used to use something typically like benzene sulfonic acid. Q. Okay. Do you consider yourself an expert in salt selection? A. It is part of my general expertise as in drug discovery and development, yes. Q. So, that is a yes, you do consider
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