UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13D

(Rule 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO \S 240.13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT TO \S 240.13d-2(a)

(Amendment No. 4)1

XOMA Corporation (Name of Issuer)

Common Stock, \$0.0075 par value (Title of Class of Securities)

> 98419J 206 (CUSIP Number)

JAMES KRATKY BVF PARTNERS L.P. 44 Montgomery St., 40th Floor San Francisco, California 94104 (415) 525-8890

ADAM W. FINERMAN, ESQ.
OLSHAN FROME WOLOSKY LLP
1325 Avenue of the Americas
New York, New York 10019
(212) 451-2300

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

<u>March 13, 2020</u> (Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of \S 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box \boxtimes .

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

<u></u>	NAME OF REPORTING PERSON				
1	I WINE OF REFORM	III/O I EROOM			
<u></u>		DLOGY VALUE FUND, L.P.			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) ☑				
			(b) □		
3	SEC USE ONLY				
4	SOURCE OF FUND	20			
4	SOURCE OF FUND	88			
	WC				
5	CHECK BOX IF DI	SCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)			
6	CITIZENSHIP OR F	PLACE OF ORGANIZATION			
NIII (DED OF	DELAWARE 7				
NUMBER OF SHARES	/	SOLE VOTING POWER			
BENEFICIALLY		- 0 -			
OWNED BY	8	SHARED VOTING POWER			
EACH REPORTING		1,921,912 (1)			
PERSON WITH	9	SOLE DISPOSITIVE POWER			
	10	- 0 - SHARED DISPOSITIVE POWER			
	10	SHARED DISPOSITIVE POWER			
		1,921,912 (1)			
11	AGGREGATE AMO	DUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	1,921,912 (1)				
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES				
		• •			
13	DED CENT OF CLAS	SS REPRESENTED BY AMOUNT IN ROW (11)			
13	I ERCENT OF CLA	SS RELKESENTED DT AMOUNT IN KOW (11)			
	18.5% (1)				
14	TYPE OF REPORTI	ING PERSON			
	PN				

(1) Includes 655,959 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 2,313,000 Shares underlying certain Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPORTING PERSON						
	BVF I GP LLC						
2	CHECK THE APPRO	(a) ⊠ (b) □					
3	SEC USE ONLY						
4	SOURCE OF FUNDS AF	SOURCE OF FUNDS AF					
5		CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)					
6	CITIZENSHIP OR PL DELAWARE	CITIZENSHIP OR PLACE OF ORGANIZATION DELAWARE					
NUMBER OF SHARES BENEFICIALLY	7	SOLE VOTING POWER - 0 -					
OWNED BY EACH REPORTING	8	SHARED VOTING POWER 1,921,912 (1)					
PERSON WITH	9	SOLE DISPOSITIVE POWER - 0 -					
	10	SHARED DISPOSITIVE POWER 1,921,912 (1)					
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,921,912 (1)						
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES						
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 18.5% (1)						
14	TYPE OF REPORTIN	IG PERSON					

(1) Includes 655,959 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 2,313,000 Shares underlying certain Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPOR	RTING PERSON		
	D. O. D. D. O. D.			
		OLOGY VALUE FUND II, L.P.	(a) 🔽	
2	CHECK THE APP	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) \boxtimes (b) \square		
3	SEC USE ONLY			
4	SOURCE OF FUN	DS		
	WC			
5		DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)		
6	CITIZENSHIP OR	PLACE OF ORGANIZATION		
	DELAWAR			
NUMBER OF	DELAWAR 7	SOLE VOTING POWER		
SHARES	,	SOLE VOINGTOWER		
BENEFICIALLY		- 0 -		
OWNED BY	8	SHARED VOTING POWER		
EACH REPORTING		1,700,127 (1)		
PERSON WITH	9	SOLE DISPOSITIVE POWER		
		- 0 -		
	10	SHARED DISPOSITIVE POWER		
		1,700,127 (1)		
11	AGGREGATE AM	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	1,700,127 (1			
12		HE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES		
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)		
	16.4% (1) TYPE OF REPORT	TING DED CON		
14	TIPE OF REPOR	THO FERSON		
	PN			

⁽¹⁾ Includes 596,813 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 1,506,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPOR	RTING PERSON				
	BVF II GP I	II C				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) ⊠					
	(t					
3	SEC USE ONLY	SEC USE ONLY				
4	SOURCE OF FUN	SOURCE OF FUNDS				
	AF					
5	CHECK BOX IF D	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
6	CITIZENSHIP OR	PLACE OF ORGANIZATION				
	DELAWAR	PF				
NUMBER OF	7	SOLE VOTING POWER				
SHARES BENEFICIALLY		- 0 -				
OWNED BY	8	SHARED VOTING POWER				
EACH REPORTING		1 700 127 (1)				
PERSON WITH	9	1,700,127 (1) SOLE DISPOSITIVE POWER				
	10	- 0 - SHARED DISPOSITIVE POWER				
11	AGGREGATE AM	1,700,127 (1) MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
11						
12	1,700,127 (1	1) THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES				
12	CHECK BOA IF I	TIL AGGREGATE AMOUNT IN ROW (11) EACLODES CERTAIN SHARES	Ц			
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	16.4% (1)					
14	TYPE OF REPORT	TING PERSON				
	00					

⁽¹⁾ Includes 596,813 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 1,506,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPOR	TING DEDSON				
1	NAME OF REPOR	TING PERSON				
	BIOTECHNO	OLOGY VALUE TRADING FUND OS, L.P.				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP					
3	SEC USE ONLY					
3	SEC USE ONE I					
4	SOURCE OF FUNI	OS .				
	WC					
5		ISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
		-				
6	CITIZENCHID OD	PLACE OF ORGANIZATION				
O	CITIZENSHIP OR	PLACE OF ORGANIZATION				
	CAYMAN IS					
NUMBER OF	7	SOLE VOTING POWER				
SHARES BENEFICIALLY		- 0 -				
OWNED BY	8	SHARED VOTING POWER				
EACH						
REPORTING PERSON WITH	0	159,537 (1)				
PERSON WITH	9	SOLE DISPOSITIVE POWER				
		- 0 -				
	10	SHARED DISPOSITIVE POWER				
		159,537 (1)				
11	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
12	159,537 (1)	TIE ACCRECATE AMOUNT IN DOW (11) EVOLUDES CERTAIN SHARES				
12	CHECK BOX IF II	HE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES	Ц			
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	1.6% (1)					
14	TYPE OF REPORT	TING PERSON				
	PN					

 $^{(1) \} Excludes \ 412,\!000 \ Shares \ underlying \ Series \ X \ Convertible \ Preferred \ Stock \ as \ described \ below \ in \ Item \ 5.$

1	NAME OF REPORTING PERSON					
	DVE DADT	NIEDC OC LTD				
2	BVF PARTNERS OS LTD. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) (a)					
2	CHECK THE 7411	ROTRINIE BOX II A MILMBER OF A GROOT	(b) □			
3	SEC USE ONLY	SEC USE ONLY				
4	SOURCE OF FUN	SOURCE OF FUNDS				
	AF					
5		CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
6	CITIZENSHIP OR	PLACE OF ORGANIZATION				
	CAYMAN I	CAYMAN ISLANDS				
NUMBER OF	7	SOLE VOTING POWER				
SHARES BENEFICIALLY						
OWNED BY	8	- 0 - SHARED VOTING POWER				
EACH						
REPORTING PERSON WITH	9	159,537 (1) SOLE DISPOSITIVE POWER				
PERSON WITH	9	SOLE DISPOSITIVE POWER				
		- 0 -				
	10	SHARED DISPOSITIVE POWER				
		159,537 (1)				
11	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	159,537 (1)					
12		HE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES				
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	1.6% (1)					
14	TYPE OF REPORT	TING PERSON	-			
	СО					

 $^{(1) \} Excludes \ 412,\!000 \ Shares \ underlying \ Series \ X \ Convertible \ Preferred \ Stock \ as \ described \ below \ in \ Item \ 5.$

1	NAME OF REPOR	RTING PERSON			
	DVE CD HC	NI DINCS LLC			
2		DLDINGS LLC ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵		
2	CHECK THE 7411	ROTALITE BOX II A MEMBER OF A GROOT	(a) □ (b) □		
3	SEC USE ONLY				
4	SOURCE OF FUN	DS			
	AF				
5		CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)			
6	CITIZENSHIP OR	PLACE OF ORGANIZATION			
	DELAWARE				
NUMBER OF	7	SOLE VOTING POWER			
SHARES					
BENEFICIALLY OWNED BY	8	- 0 - SHARED VOTING POWER			
EACH	8	SHARLD VOTINGTOWER			
REPORTING		3,622,039 (1)			
PERSON WITH	9	SOLE DISPOSITIVE POWER			
		- 0 -			
	10	SHARED DISPOSITIVE POWER			
		3,622,039 (1)			
11	AGGREGATE AM	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	2 (22 020 (1	n.			
12	3,622,039 (1 CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			
			_		
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)			
	32.9% (1)				
14	TYPE OF REPORT	TING PERSON			
	00				

⁽¹⁾ Includes 1,252,772 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 3,819,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPOR	TING DEDSON				
1	NAME OF REFOR	TING FERSON				
	BVF PARTNERS L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (2)					
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP					
3	SEC USE ONLY					
3	SEC USE UNLY					
4	SOURCE OF FUNI	DS				
	AF					
5		ISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
	CIETZENGIHD OD	DV + GE OF OD GANIFE FROM				
6	CITIZENSHIP OR	PLACE OF ORGANIZATION				
	DELAWAR	E				
NUMBER OF	7	SOLE VOTING POWER				
SHARES BENEFICIALLY		- 0 -				
OWNED BY	8	SHARED VOTING POWER				
EACH		SIMILED FORMOTOWER				
REPORTING		4,013,454 (1)				
PERSON WITH	9	SOLE DISPOSITIVE POWER				
		-0-				
	10	SHARED DISPOSITIVE POWER				
		1012 (51 (1)				
11	AGGDEGATE AM	4,013,454 (1) OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
11	AUGREGATE AMOUNT DENEFICIALLY OWNED BY EACH REPORTING PERSON					
	4,013,454 (1					
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES					
13	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (11)				
	25.404.55					
	36.4% (1) TYPE OF REPORT	TIMO DEDGOM				
14	I TPE OF KEPOKI	ING PERSON				
	PN, IA	PN, IA				

⁽¹⁾ Includes 1,252,772 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 5,003,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPORTING PERSON				
	BVF INC.				
	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) (a)				
			(b) □		
3	SEC USE ONLY				
4	SOURCE OF FUN	DS			
	AF				
5		DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)			
6	CITIZENSHIP OR	PLACE OF ORGANIZATION			
	DELAWAR	E			
NUMBER OF	7	SOLE VOTING POWER	-		
SHARES BENEFICIALLY		- 0 -			
OWNED BY	8	SHARED VOTING POWER			
EACH REPORTING		4,013,454 (1)			
PERSON WITH	9	SOLE DISPOSITIVE POWER			
	10	- 0 - SHARED DISPOSITIVE POWER			
		1000 101 (1)			
11	AGGREGATE AM	4,013,454 (1) IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
12	4,013,454 (1 CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			
			_		
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
	36.4% (1)				
14	TYPE OF REPORT	TING PERSON			
	СО				

⁽¹⁾ Includes 1,252,772 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 5,003,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPORTI	ING PERSON			
	MARK N. LA	MPERT			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) (a)				
2	(b) (b)				
			()		
3	SEC USE ONLY				
	COLUD CE OF FUNDO				
4	SOURCE OF FUNDS				
	AF				
5		CLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)			
6	CITIZENSHIP OR PI	LACE OF ORGANIZATION			
	USA				
NUMBER OF	7	SOLE VOTING POWER			
SHARES	,	SOLE VOTINGTOWER			
BENEFICIALLY		- 0 -			
OWNED BY	8	SHARED VOTING POWER			
EACH		1010 (7)			
REPORTING PERSON WITH	0	4,013,454 (1) SOLE DISPOSITIVE POWER			
PERSON WITH	9	SOLE DISPOSITIVE POWER			
		- 0 -			
	10	SHARED DISPOSITIVE POWER			
		4,013,454 (1)			
11	AGGREGATE AMO	UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	4,013,454 (1)				
12	CHECK BOX IF THE	E AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES			
			_		
13	PERCENT OF CLAS	S REPRESENTED BY AMOUNT IN ROW (11)			
	26 407 (1)				
14	36.4% (1) TYPE OF REPORTIN	NG PERSON			
17	TITE OF KEI OKIII	TO LEADON			
	IN				

⁽¹⁾ Includes 1,252,772 Shares currently issuable upon the conversion of certain Series Y Convertible Preferred Stock and excludes 5,003,000 Shares underlying Series X Convertible Preferred Stock as described below in Item 5.

1	NAME OF REPORTING PERSON					
	MATTHEW	/ D. PERRY				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP					
3	SEC USE ONLY					
4	SOURCE OF FUN	SOURCE OF FUNDS				
5	CHECK BOX IF D	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) OR 2(e)				
6	CITIZENSHIP OR	PLACE OF ORGANIZATION				
	USA					
NUMBER OF SHARES BENEFICIALLY	7	SOLE VOTING POWER 40,240 (1)				
OWNED BY EACH	8	SHARED VOTING POWER				
REPORTING PERSON WITH	9	- 0 - SOLE DISPOSITIVE POWER				
	10	40,240 (1) SHARED DISPOSITIVE POWER				
	10	- 0 -				
11	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	40,240 (1)					
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES □					
13	PERCENT OF CLA	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)				
	Less than 1%	%(1)				
14	TYPE OF REPORT	TING PERSON				
	IN					

⁽¹⁾ Includes 28,441 Shares issuable on the exercise of certain options that are exercisable within sixty days hereof.

The following constitutes Amendment No. 4 to the Schedule 13D filed by the undersigned (the "Amendment No. 4"). This Amendment No. 4 amends the Schedule 13D as specifically set forth herein.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 is hereby amended and restated to read as follows:

The Shares purchased by BVF, BVF2 and Trading Fund OS were purchased with working capital (which may, at any given time, include margin loans made by brokerage firms in the ordinary course of business) in open market purchases, except as otherwise noted. The aggregate purchase price of the 1,265,953 Shares owned directly by BVF is approximately \$15,075,269, including brokerage commissions. The aggregate purchase price of the 1,103,314 Shares owned directly by BVF2 is approximately \$14,041,998, including brokerage commissions. The aggregate purchase price of the 159,537 Shares owned directly by Trading Fund OS is approximately \$1,324,498, including brokerage commissions. The aggregate purchase price of the 231,878 Shares held in the Partners Managed Accounts is approximately \$1,005,667, including brokerage commissions.

The aggregate purchase price of the 2,313 shares of Series X Convertible Preferred Stock, par value \$0.05 per share (the "Series X Preferred Stock") owned directly by BVF is approximately \$9,321,390, including brokerage commissions. The aggregate purchase price of the 1,506 shares of Series X Preferred Stock owned directly by BVF2 is approximately \$6,069,180, including brokerage commissions. The aggregate purchase price of the 412 shares of Series X Preferred Stock owned directly by Trading Fund OS is approximately \$1,660,360, including brokerage commissions. The aggregate purchase price of the 772 shares of Series X Preferred Stock held in the Partners Managed Accounts is approximately \$3,111,160, including brokerage commissions.

The aggregate purchase price of the 655.959 shares of Series Y Convertible Preferred Stock, par value \$0.05 per share (the "Series Y Preferred Stock") owned directly by BVF is approximately \$8,527,467, including brokerage commissions. The aggregate purchase price of the 596.813 shares of Series Y Preferred Stock owned directly by BVF2 is approximately \$7,758,569, including brokerage commissions.

The Shares beneficially owned by Mr. Perry were awarded by the Issuer in connection with his service as a director.

Item 5. <u>Interest in Securities of the Issuer.</u>

Items 5(a)-(c) are hereby amended and restated to read as follows:

(a) The aggregate percentage of Shares reported owned by each person named herein is based on a denominator that is the sum of: (i) 9,761,901 Shares outstanding as of March 5, 2020, which is the total number of Shares outstanding as reported in the Issuer's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 10, 2020, (ii) certain or all of the 1,252,772 Shares underlying the Series Y Preferred Stock and (iii) with respect to Mr. Perry, 28,441 Shares issuable on the exercise of certain options.

As of the date hereof, the Reporting Persons hold 5,003 shares of Series X Preferred Stock, convertible into an aggregate of 5,003,000 Shares. Each share of Series X Preferred Stock is convertible into 1,000 Shares. The Series X Preferred Stock may not be converted if, after such conversion, the Reporting Persons would beneficially own, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), more than 19.99% of the Shares outstanding immediately after giving effect to such conversion (the "Series X Beneficial Ownership Limitation, limits the aggregate conversion of the Series X Preferred Stock by the Reporting Persons to zero out of the 5,003,000 Shares underlying the Series X Preferred Stock.

As of the date hereof, the Reporting Persons hold 1,252.772 shares of Series Y Preferred Stock, convertible into an aggregate of 1,252,772 Shares. Each share of Series Y Preferred Stock is convertible into 1,000 Shares based on a conversion price of \$13.00 per Share. The Series Y Preferred Stock may not be converted if, after such conversion, the Reporting Persons would beneficially own, as determined in accordance with Section 13(d) of the Exchange Act, more than 50.0% of the Shares outstanding immediately after giving effect to such conversion (the "Series Y Beneficial Ownership Limitation"). As of the date hereof, the Series Y Beneficial Ownership Limitation does not limit the aggregate conversion of the Series Y Preferred Stock by the Reporting Persons.

As of the date hereof, (i) BVF beneficially owned 1,921,912 Shares, including 655,959 Shares issuable upon the conversion of certain Series Y Preferred Stock and excluding 2,313,000 Shares issuable upon the conversion of certain Series X Preferred Stock, representing percentage ownership of approximately 18.5% of the Shares outstanding, (ii) BVF2 beneficially owned 1,700,127 Shares, including 596,813 Shares issuable upon the conversion of certain Series Y Preferred Stock and excluding 1,506,000 Shares issuable upon the conversion of certain Series X Preferred Stock, representing percentage ownership of approximately 16.4% of the Shares outstanding, (iii) Trading Fund OS beneficially owned 159,537 Shares, excluding 412,000 Shares issuable upon the conversion of certain Series X Preferred Stock, representing percentage ownership of approximately 1.6% of the Shares outstanding, and (iv) 231,878 Shares were held in the Partners Managed Accounts, excluding 772,000 Shares issuable upon the conversion of certain Series X Preferred Stock, representing percentage ownership of approximately 2.4% of the Shares outstanding.

BVF GP, as the general partner of BVF, may be deemed to beneficially own the 1,921,912 Shares beneficially owned by BVF, representing percentage ownership of approximately 18.5% of the Shares outstanding.

BVF2 GP, as the general partner of BVF2, may be deemed to beneficially own the 1,700,127 Shares beneficially owned by BVF2, representing percentage ownership of approximately 16.4% of the Shares outstanding.

Partners OS, as the general partner of Trading Fund OS, may be deemed to beneficially own the 159,537 Shares beneficially owned by Trading Fund OS, representing percentage ownership of approximately 1.6% of the Shares outstanding.

BVF GPH, as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the 3,622,039 Shares beneficially owned in the aggregate by BVF and BVF2, representing percentage ownership of approximately 32.9% of the Shares outstanding.

Partners, as the investment manager of BVF, BVF2, Trading Fund OS and the Partners Managed Accounts and the sole member of Partners OS, may be deemed to beneficially own the 4,013,454 Shares beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and held in the Partners Managed Accounts, representing percentage ownership of approximately 36.4% of the Shares outstanding.

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 4,013,454 Shares beneficially owned by Partners, representing percentage ownership of approximately 36.4% of the Shares outstanding.

Mr. Lampert, as a director and officer of BVF Inc. may be deemed to beneficially own the 4,013,454 Shares beneficially owned by BVF Inc., representing percentage ownership of approximately 36.4% of the Shares outstanding.

As of the date hereof, Mr. Perry beneficially owned 40,240 Shares, including 28,441 Shares issuable on the exercise of certain options that are exercisable within sixty days hereof, representing percentage ownership of less than 1%.

- (b) Each of BVF, BVF2 and Trading Fund OS shares with Partners voting and dispositive power over the Shares each such entity beneficially owns. BVF shares with BVF GP voting and dispositive power over the Shares beneficially owned by BVF. BVF2 shares with BVF2 GP voting and dispositive power over the Shares beneficially owned by BVF2. Each of BVF GP and BVF2 GP shares with BVF GPH voting and dispositive power over the Shares each such entity beneficially owns. Trading Fund OS shares with Partners OS voting and dispositive power over the Shares beneficially owned by Trading Fund OS. Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the 4,005,341 Shares they may be deemed to beneficially own with BVF, BVF GP, BVF2, BVF2 GP, Trading Fund OS, Partners OS, BVF GPH and the Partners Managed Accounts.
- (c) Schedule A annexed hereto lists all transactions in securities of the Issuer by the Reporting Persons since the filing of Amendment No. 3 to the Schedule 13D. All of such transactions were effected in the open market.

The filing of this Schedule 13D shall not be deemed an admission that the Reporting Persons are, for purposes of Section 13(d) of the Securities Exchange Act of 1934, as amended, the beneficial owners of any securities of the Issuer that he or it does not directly own. Each of the Reporting Persons specifically disclaims beneficial ownership of the securities reported herein that he or it does not directly own.

SIGNATURES

After reasonable inquiry and to the best of his or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: March 17, 2020

BIOTECHNOLOGY VALUE FUND, L.P.

By: BVF I GP LLC., its general partner

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF I GP LLC

By: /s/ Mark N. Lampert

Mark N. Lampert Chief Executive Officer

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF II GP LLC its general partner

By: /s/ Mark N. Lampert Mark N. Lampert Chief Executive Officer

BVF II GP LLC

By: /s/ Mark N. Lampert

Mark N. Lampert Chief Executive Officer

BVF PARTNERS OS LTD.

By: BVF Partners L.P., its sole member

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert President BIOTECHNOLOGY VALUE TRADING FUND OS LP

By: BVF Partners L.P., its investment manager

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark Lampert President

BVF GP HOLDINGS LLC

By: /s/ Mark N. Lampert

Mark Lampert Chief Executive Officer

BVF PARTNERS L.P.

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert
Mark N. Lampert
President

BVF INC.

By: /s/ Mark N. Lampert

Mark Lampert President

/s/ Mark N. Lampert

MARK N. LAMPERT

/s/ Matthew D. Perry

MATTHEW D. PERRY

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$\underline{SCHEDULE\;A}$

<u>Transactions in the Shares Since the Filing of Amendment No. 3 to the Schedule 13D</u>

Class of <u>Security</u>	Shares Purchased	<u>Price (\$)</u>	Date of <u>Purchase</u>			
BIOTECHNOLOGY VALUE FUND, L.P.						
Common Stock	100,000	18.3409	03/13/2020			
Common Stock	10,164	15.7336	03/16/2020			
Common Stock	8 113	15 7337	03/17/2020			