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

SCHEDULE 13G

(Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1(b), (c), AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(b)

(Amendment No. 2)¹

Novus Therapeutics, Inc.
(Name of Issuer)
Common Stock, \$0.001 par value
(Title of Class of Securities)
67011N204
(CUSIP Number)
December 22, 2020
(Date of Event Which Requires Filing of this Statement)
Check the appropriate box to designate the rule pursuant to which this Schedule is filed:
□ Rule 13d-1(b)
⊠ Rule 13d-1(c)
□ Rule 13d-1(d)
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 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, <i>see</i> the <i>Notes</i>).

1	NAME OF REPORT	ING PERSON	
		Value Fund, L.P.	
2	CHECK THE APPR	OPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
3	SEC USE ONLY		
3	SEC OSE ONEI		
4	CITIZENSHIP OR P	LACE OF ORGANIZATION	
	D 1		
NUMBER OF	Delaware 5	SOLE VOTING POWER	
SHARES	3	SOLE VOTING FOWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		771,780*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		771 700*	
9	AGGREGATE AMO	771,780* OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	7100REGITE 71110	ON BENEFICINEET OWNER BY ENGINEET ON THE ON THE	
	771,780*		
10	CHECK BOX IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLAS	SS REPRESENTED BY AMOUNT IN ROW (9)	
	5.1%*		
12	TYPE OF REPORTI	NG PERSON	
	PN		
	111		

Excludes 79,500 Shares underlying certain Private Placement Warrants (defined in Item 4) that may not be exercised due to the Private Placement Blocker (defined in Item 4).

Excludes 1,453,117 Shares underlying certain Series X^1 Preferred Warrants (defined in Item 4) that may not be exercised due to the Series X^1 Preferred Warrant Blocker (defined in Item 4).

^{*} Excludes 2,896,944 Shares underlying certain Series X^1 Preferred (defined in Item 4) that may not be exercised due to the Series X^1 Blocker (defined in Item 4).

1	NAME OF REPORT	TING PERSON	
	DI INTERNATION DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION		
	BVF I GP LL		
2	CHECK THE APPR	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
3	SEC USE ONLY		
3	SEC OSE OIVEI		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
177 (DED 05	Delaware	Lack B Mozphia Powing	
NUMBER OF SHARES	5	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		771,780*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0.1	
	8	0 shares SHARED DISPOSITIVE POWER	
	0	SHARED DISPOSITIVE POWER	
		771,780*	
9	AGGREGATE AMO	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	771,780*		
10	CHECK BOX IF TH	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLA	SS REPRESENTED BY AMOUNT IN ROW (9)	
**			
	5.1%*		
12	TYPE OF REPORT	ING PERSON	
	00		
	OO		

Excludes 79,500 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 1,453,117 Shares underlying certain Series X^1 Preferred Warrants that may not be exercised due to the Series X^1 Preferred Warrant Blocker.

^{*} Excludes 2,896,944 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

1	NAME OF REPORT	ING PERSON	
	Biotechnology	Value Fund II, L.P.	
2	CHECK THE APPRO	OPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠ (b) □
3	SEC USE ONLY		
4	CITIZENSHIP OR P	LACE OF ORGANIZATION	
	Delaware		
NUMBER OF SHARES	5	SOLE VOTING POWER	
BENEFICIALLY	(0 shares	
OWNED BY EACH	6	SHARED VOTING POWER	
REPORTING		598,624*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		598,624*	
9	AGGREGATE AMO	UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	598,624*		
10		E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CLAS	S REPRESENTED BY AMOUNT IN ROW (9)	
	4.0%*		
12	TYPE OF REPORTI	NG PERSON	-
	PN		

Excludes 64,549 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 1,086,823 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

^{*} Excludes 2,205,154 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

	1		
1	NAME OF REPO	RTING PERSON	
	BVF II GP I		
2	CHECK THE API	PROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
	GEGLIGE ONLY		
3	SEC USE ONLY		
4	CITIZENSHIP OF	R PLACE OF ORGANIZATION	
7	CITIZENSIIII OI	ATENCE OF OROHIVEATION	
	Delaware		
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH		500 (0.4th	
REPORTING		598,624*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		598,624*	
9	AGGREGATE AN	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
1.0	598,624*		
10	CHECK BOX IF T	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
11	I EXCENT OF CL	ADD REFREDERIED DT AMOUNT IN ROW (7)	
	4.0%*		
12	TYPE OF REPOR	TING PERSON	
	00		

^{*} Excludes 2,205,154 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

Excludes 64,549 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 1,086,823 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

1	NAME OF REPO	RTING PERSON	
	Biotechnolo	gy Value Trading Fund OS LP	
2	CHECK THE APP	PROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) □
			· /
3	SEC USE ONLY		
4	CITIZENSHIP OF	PLACE OF ORGANIZATION	
	Cayman Isla	nds	
NUMBER OF	5	SOLE VOTING POWER	
SHARES			
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		113,152*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		113,152*	
9	AGGREGATE AN	MOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	113,152*		
10	CHECK BOX IF T	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	PERCENT OF CL	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	Less than 19		
12	TYPE OF REPOR	TING PERSON	
	PN		

^{*} Excludes 375,423 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

Excludes 11,416 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 189,022 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

1	NAME OF REPORT	ING PERSON	
	BVF Partners (
2	CHECK THE APPR	OPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
3	SEC USE ONLY		
3	SEC CSE ONEI		
4	CITIZENSHIP OR P	LACE OF ORGANIZATION	
	Carman Ialan I	_	
NUMBER OF	Cayman Island	SOLE VOTING POWER	
SHARES	3	SOLE VOTINGTOWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH		110.150#	
REPORTING PERSON WITH	7	113,152* SOLE DISPOSITIVE POWER	
TERSON WITH	/	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		442.4524	
9	ACCDECATE AMO	113,152* OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
9	AGGREGATE AMO	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	113,152*		
10	CHECK BOX IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	DEDCENT OF CLAS	SS REPRESENTED BY AMOUNT IN ROW (9)	
11	TERCENT OF CLAS	33 KLI KESENTED DT AMOUNT IN KOW (9)	
	Less than 1%*		
12	TYPE OF REPORTI	NG PERSON	
	00		
	CO		

Excludes 11,416 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 189,022 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

^{*} Excludes 375,423 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

	+		
1	NAME OF REPOR	RTING PERSON	
		LDINGS LLC	
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	C I.1.	. 1-	
NUMBER OF	Cayman Isla	SOLE VOTING POWER	
NUMBER OF SHARES	3	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH	o o	SIMILED VOTING TO WER	
REPORTING		1,370,404*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	-
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		1,370,404*	
9	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	1.250.4044		
10	1,370,404*	THE ACCRECATE AMOUNT BUROW (A) EVOLUDED CERTAIN CHARGE	
10	CHECK BOX IF T	THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	DED CENT OF CI	ASS REPRESENTED BY AMOUNT IN ROW (9)	
11	I ERCENT OF CL.	ASS REI RESENTED DT AMOUNT IN ROW (3)	
	9.0%*		
12	TYPE OF REPOR	TING PERSON	
1-			
	OO		
	!		

^{*} Excludes 5,102,098 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

Excludes 144,049 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 2,539,940 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

[r	i		
1	NAME OF REPOR	RTING PERSON	
	BVF Partner		
2	CHECK THE APP	ROPRIATE BOX IF A MEMBER OF A GROUP	(a) ⊠
			(b) □
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
	D.L.		
NUMBER OF	Delaware 5	SOLE VOTING POWER	
NUMBER OF SHARES	3	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH		SHARED VOTINGTOWER	
REPORTING		1,514,519*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
	,		
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		1,514,519*	
9	AGGREGATE AM	IOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
4.2	1,514,519*	NIE J GODDO JEE J VOID EN DANGE (C)	
10	CHECK BOX IF T	HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	DED CENTE OF CL	ACC DEDDECEMBED DV AMOUNT DI DOW (0)	
11	PERCENT OF CL.	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	9.99%*		
12	TYPE OF REPOR	TING PERSON	
12	I I FE OF KEPOK	TINU LEASON	
	PN, IA		
	111, 1/1		

^{*} Excludes 5,565,898 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

Excludes 161,551 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 2,789,299 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

1	NAME OF REPORT	ING PERSON	
	BVF Inc.		
2	CHECK THE APPRO	OPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
			(b) □
3	SEC USE ONLY		
3	SEC USE ONLI		
4	CITIZENSHIP OR P	LACE OF ORGANIZATION	
NILIMBED OF	Delaware 5	SOLE VOTING POWER	
NUMBER OF SHARES	3	SOLE VOTING POWER	
BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH			
REPORTING		1,514,519*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		1.514.510*	
9	ACCDECATE AMO	1,514,519* OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
9	AGGREGATE AWO	ONI DENEFICIALLI OWNED DI EACH REFORTINO FERSON	
	1,514,519*		
10	CHECK BOX IF TH	E AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	DEDCENT OF CLAS	SS REPRESENTED BY AMOUNT IN ROW (9)	
11	I ERCENT OF CLAS	55 KLI KLSLIVILD DI AMOUNI IN KOW (3)	
	9.99%*		
12	TYPE OF REPORTI	NG PERSON	
	CO		
	CO		

Excludes 161,551 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 2,789,299 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

^{*} Excludes 5,565,898 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

1	NAME OF REPOR	TING PERSON	
	Mc al Ni I		
2	Mark N. Lam	pert ROPRIATE BOX IF A MEMBER OF A GROUP	(a) 🗵
2	CHECK THE APPI	ROPRIALE BOX IF A MEMBER OF A GROUP	(a) ⊠ (b) □
			(0) —
3	SEC USE ONLY		
4	CITIZENSHIP OR	PLACE OF ORGANIZATION	
'	CITIZENSIIII OR	TENCE OF OROTHIESTION	
	United States		
NUMBER OF	5	SOLE VOTING POWER	
SHARES BENEFICIALLY		0 shares	
OWNED BY	6	SHARED VOTING POWER	
EACH		STATES YOTH OTO WELL	
REPORTING		1,514,519*	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
		0 shares	
	8	SHARED DISPOSITIVE POWER	
		1,514,519*	
9	AGGREGATE AM	OUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	1,514,519*		
10		HE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES	
11	DED CENT OF CL	ACC DEDDECENTED DV AMOUNT BUDOW (0)	
11	PERCENT OF CLA	ASS REPRESENTED BY AMOUNT IN ROW (9)	
	9.99%*		
12	TYPE OF REPORT	TING PERSON	
	D.		
	IN		

^{*} Excludes 5,565,898 Shares underlying certain Series X¹ Preferred that may not be exercised due to the Series X¹ Blocker.

Excludes 161,551 Shares underlying certain Private Placement Warrants that may not be exercised due to the Private Placement Blocker.

Excludes 2,789,299 Shares underlying certain Series X¹ Preferred Warrants that may not be exercised due to the Series X¹ Preferred Warrant Blocker.

Item 1(a). Name of Issuer:

Novus Therapeutics, Inc., a Delaware corporation (the "Issuer").

Item 1(b). Address of Issuer's Principal Executive Offices:

19900 MacArthur Blvd., Suite 550

Irvine, California 92612

Item 2(a). Name of Person Filing

Item 2(b). Address of Principal Business Office or, if None, Residence

Item 2(c). Citizenship

Biotechnology Value Fund, L.P. ("BVF")

44 Montgomery St., 40th Floor San Francisco, California 94104

Citizenship: Delaware

BVF I GP LLC ("BVF GP")

44 Montgomery St., 40th Floor San Francisco, California 94104

Citizenship: Delaware

Biotechnology Value Fund II, L.P. ("BVF2")

44 Montgomery St., 40th Floor

San Francisco, California 94104

Citizenship: Delaware

BVF II GP LLC ("BVF2 GP")

44 Montgomery St., 40th Floor

San Francisco, California 94104

Citizenship: Delaware

Biotechnology Value Trading Fund OS LP ("Trading Fund OS")

PO Box 309 Ugland House

Grand Cayman, KY1-1104

Cayman Islands

Citizenship: Cayman Islands

BVF Partners OS Ltd. ("Partners OS")

PO Box 309 Ugland House

Grand Cayman, KY1-1104

Cayman Islands

Citizenship: Cayman Islands

BVF GP Holdings LLC ("BVF GPH")

44 Montgomery St., 40th Floor

San Francisco, California 94104

Citizenship: Delaware

BVF Partners L.P. ("Partners")

44 Montgomery St., 40th Floor

San Francisco, California 94104

Citizenship: Delaware

BVF Inc. 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: Delaware Mark N. Lampert ("Mr. Lampert") 44 Montgomery St., 40th Floor San Francisco, California 94104 Citizenship: United States Title of Class of Securities: CUSIP Number:

Each of the foregoing is referred to as a "Reporting Person" and collectively as the "Reporting Persons."

Item 2(d).

Common Stock, \$0.001 par value (the "Shares")

Item 2(e).

67011N204

Item 3. If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the Person Filing is a:

	/x/	Not applicable.
(a)	//	Broker or dealer registered under Section 15 of the Exchange Act.
(b)	//	Bank as defined in Section 3(a)(6) of the Exchange Act.
(c)	//	Insurance company as defined in Section 3(a)(19) of the Exchange Act.
(d)	//	Investment company registered under Section 8 of the Investment Company Act.
(e)	//	An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
(f)	//	An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
(g)	//	A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
(h)	//	A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act.
(i)	//	A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act.
(j)	//	Group, in accordance with Rule 13d-1(b)(1)(ii)(J).
(k)	//	Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K). If filing as a non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J), please specify the type of institution:

Item 4. Ownership

(a) Amount beneficially owned:

As reported in the Issuer's Current Report on Form 8-K with the Securities and Exchange Commission on December 22, 2020, on December 18, 2020, at a special meeting of stockholders, the stockholders approved the issuance of Shares upon conversion of the Company's Series X Convertible Preferred Stock (the "Series X Preferred"), and Series X¹ Convertible Preferred Stock (the "Series X Preferred") (the "Conversion Proposal"). Effective upon the Conversion Proposal, the issued and outstanding Series X Preferred and Series X¹ Preferred automatically converted into Shares two business days following approval of the Conversion Proposal (to the extent such conversions are limited by beneficial ownership conversion blockers). As of the close of business on December 28, 2020, the Reporting Persons held 100,186 shares of Series X¹ Preferred, convertible for an aggregate of 5,565,898 Shares. Each share of the Series X¹ Preferred is convertible into 55.55 Shares. The Series X¹ Preferred 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, more than 9.99% of the number of shares of Shares then issued and outstanding (the "Series X¹ Preferred Blocker"). As of the close of business on December 28, 2020, the Series X¹ Blocker limits the aggregate conversion of the Series X¹ Preferred by the Reporting Persons to 0 out of the 5.565,898 Shares underlying the Series X¹ Preferred owned by the Reporting Persons in the aggregate.

As of the close of business on December 28, 2020, the Reporting Persons held Warrants (the "Private Placement Warrants") exercisable into an aggregate of 161,551 Shares. Each Private Placement Warrant has a strike price per Share of \$12.96 and expires on July 14, 2025. Subject to limited exceptions, a holder of the Private Placement Warrants will not have the right to exercise any portion of its Private Placement Warrants if the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of Shares outstanding immediately after giving effect to such exercise (the "Private Placement Blocker"). As of the close of business on December 28, 2020, the Private Placement Blocker limits the aggregate exercise of the Private Placement Warrants by the Reporting Persons to 0 out of 161,551 Shares underlying the Private Placement Warrants owned by the Reporting Persons in the aggregate. In providing beneficial ownership described herein, the Reporting Persons have assumed that the Private Placement Warrants owned by each of BVF, BVF2, Trading Fund OS, and in a certain Partners Managed Account (the "Partners Managed Account") would not be exercised due to the Private Placement Blocker.

As of the close of business on December 28, 2020, the Reporting Persons held Warrants (the "Series X¹ Preferred Warrants") exercisable into an aggregate of 2,789 Series X¹ Preferred or 2,789,299 Shares. Each Series X¹ Preferred Warrant has a strike price per Share of \$8,962.74 and expires on September 14, 2025. Subject to limited exceptions, a holder of Series X¹ Preferred Warrants will not have the right to exercise any portion of its Series X¹ Preferred Warrants if the holder, together with its affiliates, would beneficially own in excess of 9.99% of the number of Shares outstanding immediately after giving effect to such exercise (the "Series X¹ Preferred Warrant Blocker"). As of the close of business on December 28, 2020, the Series X¹ Preferred Warrant Blocker limits the exercise of Series X¹ Preferred Warrants by the Reporting Persons to 0 out of the 2,789,299 Shares underlying the Series X¹ Preferred Warrants owned by the Reporting Persons in the aggregate. In providing beneficial ownership described herein, the Reporting Persons have assumed that the Series X¹ Preferred Warrants owned by each of BVF, BVF2, Trading Fund OS and in the Partners Managed Account would not be exercised due to the Series X¹ Preferred Warrant Blocker.

As of the close of business on December 28, 2020 (i) BVF beneficially owned 771,780 Shares, (ii) BVF2 beneficially owned 598,624 Shares, and (iii) Trading Fund OS beneficially owned 113,152 Shares.

BVF GP, as the general partner of BVF, may be deemed to beneficially own the 771,780 Shares beneficially owned by BVF.

BVF2 GP, as the general partner of BVF2, may be deemed to beneficially own the 598,624 Shares beneficially owned by BVF2.

Partners OS, as the general partner of Trading Fund OS, may be deemed to beneficially own the 113,152 Shares beneficially owned by Trading Fund OS.

BVF GPH, as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the 1,370,404 Shares beneficially owned in the aggregate by BVF and BVF2.

Partners, as the general partner of BVF, BVF2, the investment manager of Trading Fund OS, and the sole member of Partners OS, may be deemed to beneficially own the 1,514,519 Shares beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and the Partners Managed Account, including 30,963 Shares held in the Partners Managed Account.

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 1,514,519 Shares beneficially owned by Partners.

Mr. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 1,514,519 Shares beneficially owned by BVF Inc.

The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of any Shares owned by another Reporting Person. BVF GP disclaims beneficial ownership of the Shares beneficially owned by BVF. BVF2 GP disclaims beneficial ownership of the Shares beneficially owned by BVF2. Partners OS disclaims beneficial ownership of the Shares beneficially owned by BVF and BVF2. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the Shares beneficially owned by BVF, BVF2, Trading Fund OS, and held in the Partners Managed Account, and the filing of this statement shall not be construed as an admission that any such person or entity is the beneficial owner of any such securities.

(b) Percent of class:

The following percentages are based on 15,160,397 Shares outstanding as disclosed in the Issuer's Current Report on Form 8-K with the Securities and Exchange Commission on December 22, 2020.

As of the close of business on December 28, 2020 (i) BVF beneficially owned approximately 5.1% of the outstanding Shares, (ii) BVF2 beneficially owned approximately 4.0% of the outstanding Shares, (iii) Trading Fund OS beneficially owned less than 1% of the outstanding Shares, (iv) BVF GP may be deemed to beneficially own approximately 5.1% of the outstanding Shares, (v) BVF2 GP may be deemed to beneficially own approximately 4.0% of the outstanding Shares, (vi) Partners OS may be deemed to beneficially own less than 1% of the outstanding Shares, (vii) BVF GPH may be deemed to beneficially own approximately 9.0% of the outstanding Shares and (viii) each of Partners, BVF Inc. and Mr. Lampert may be deemed to beneficially own approximately 9.99% of the outstanding Shares (less than 1% of the outstanding Shares is held in the Partners Managed Account).

- (c) Number of shares as to which such person has:
- (i) Sole power to vote or to direct the vote

See Cover Pages Items 5-9.

(ii) Shared power to vote or to direct the vote

See Cover Pages Items 5-9.

(iii) Sole power to dispose or to direct the disposition of

See Cover Pages Items 5-9.

(iv) Shared power to dispose or to direct the disposition of

See Cover Pages Items 5-9.

Item 5. Ownership of Five Percent or Less of a Class.

Not Applicable.

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

BVF GP, BVF GPH, Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by BVF. BVF2 GP, BVF GPH, Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by BVF2. Partners OS, Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by Trading Fund OS and Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the Shares beneficially owned by the Partners Managed Account.

Item 7. Identification and Classification of the Subsidiary That Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

See Exhibit 99.1 to Amendment No. 1 to the Schedule 13G filed with the Securities and Exchange Commission on October 5, 2020.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certifications.

By signing below each of the undersigned certifies that, to the best of its knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

Mark N. Lampert President

SIGNATURE

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

Dated: December 28, 2020 BIOTECHNOLOGY VALUE FUND, L.P. BIOTECHNOLOGY VALUE TRADING FUND OS LP By: BVF I GP LLC., its general partner By: BVF Partners L.P., its investment manager By: BVF Inc., its general partner By: /s/ Mark N. Lampert Mark N. Lampert By: /s/ Mark N. Lampert Chief Executive Officer Mark N. Lampert President BVF I GP LLC BVF GP HOLDINGS LLC By: /s/ Mark N. Lampert Mark N. Lampert By: /s/ Mark N. Lampert Chief Executive Officer Mark N. Lampert Chief Executive Officer BIOTECHNOLOGY VALUE FUND II, L.P. BVF PARTNERS L.P. By: BVF II GP LLC, its general partner By: BVF Inc., its general partner By: /s/ Mark N. Lampert Mark N. Lampert /s/ Mark N. Lampert Chief Executive Officer Mark N. Lampert President BVF II GP LLC BVF INC. By: /s/ Mark N. Lampert Mark N. Lampert By: /s/ Mark N. Lampert Chief Executive Officer Mark N. Lampert President BVF PARTNERS OS LTD. /s/ Mark N. Lampert By: BVF Partners L.P., its sole member MARK N. LAMPERT BVF Inc., its general partner Bv: /s/ Mark N. Lampert