FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

STATEM	ENT	OF (	CHA	NGES

## **EMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

OMB APPROVAL

OMB Number: 3235-0287

Estimated average burden

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

44 MONTGOMERY STREET

 $\mathbf{C}\mathbf{A}$ 

(State)

1. Name and Address of Reporting Person\*

94104

(Zip)

40TH FL

FRANCISCO

(Street)
SAN

(City)

	tions may cont ction 1(b).	inue. See		Filed	d pursua or Se	ant t	to Section	16(a)	of the S	ecuriti nt Cor	es Exchange	e Act	of 193	4		hours	per re	sponse:	0.5
		f Reporting Person	*		2. Iss	suer	Name ar	nd Tick	er or Tra	ading	. ,				ationship k all app Direc	,	ng Per	( )	
(Last) 44 MON 40TH FI	TGOMER	•	(Middle)		3. Date of Earliest Transaction (Month/Day/Year) 11/04/2020						Office below	er (give title		Other ( below)					
Street) SAN FRANC	ISCO C.	<b>A</b> !	94104		4. If <i>i</i>	Ame	endment,	Date o	f Origina	al Filed	d (Month/Day	y/Year	·)	6. Indi Line)	Form	Joint/Group filed by On- filed by Moon	e Rep	orting Pers	on
(City)	(S	tate) (	(Zip)																
		Table	l - No	n-Deriva	ative \$	Sec	curities	Acq	uired,	Dis	posed of,	or l	3ene	eficially	/ Own	ed			
Date		2. Transac Date (Month/Da			2A. Deemed Execution Date, if any (Month/Day/Year)		3. Transaction Code (Instr. 8)		4. Securities Acquired (A Disposed Of (D) (Instr. 3, 5)			5. Amo Securit Benefic Owned Report	ties cially I Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)				
									Code	v	Amount	(A (D	or	Price	Transa	ction(s) 3 and 4)			(11150. 4)
Common	Stock, \$0.	001 par value <sup>(1)</sup>		11/04/	2020				P		674,492		A	\$2.6	4,9	80,812		<b>D</b> <sup>(2)</sup>	
		001 par value <sup>(1)</sup>		11/04/		$\downarrow$			P		506,155	-	A	\$2.6		12,350		D <sup>(3)</sup>	
Common	Stock, \$0.	001 par value <sup>(1)</sup>		11/04/					P		86,090		4	\$2.6	<u> </u>	0,453		D <sup>(4)</sup>	
		Та									osed of, o onvertibl				Owne	d			
I. Title of Derivative Security Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	if any	emed ion Date, /Day/Year)	4. Transa Code ( 8)		on of	rities lired r osed ) : 3, 4	6. Date Expirati (Month/	ion Da			Der Sed (Ins	R		y	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownershi (Instr. 4)	
					Code	v	(A)	(D)	Date Exercis	able	Expiration Date	Title	Amo or Num of Sha	nber					
		f Reporting Person	*																
(Last) 44 MON 40TH FI	TGOMER	(First) Y ST.	(Mi	ddle)															
Street) SAN FRANC	ISCO	CA	94	104															
(City)		(State)	(Zip	D)															
		f Reporting Person		ND L P															
(Last)		(First)	(Mi	ddle)		_													

(Last)	(First)	(Middle)
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(Street) SAN		
FRANCISCO	CA	94104
(City)	(State)	(Zip)
	ess of Reporting Person	
		JE FUND II LP
(Last)	(First)	(Middle)
44 MONTGOM	IERY STREET	
40TH FL		
(Street)		
SAN FRANCISCO	CA	94104
(City)	(State)	(Zip)
	ess of Reporting Perso	on <sup>*</sup>
BVF II GP L	<u>.LC</u>	
(Last)	(First)	(Middle)
44 MONTGOM	IERY ST., 40TH F	LOOR
(Street)		
SAN	C.A.	04104
FRANCISCO	CA	94104
(Citv)	(State)	(Zin)
(City)	(State)	(Zip)
1. Name and Addre	ess of Reporting Perso	on*
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1. Name and Addrese Biotechnology (Last) P.O. BOX 309 UStreet) GRAND	ess of Reporting Person	ng Fund OS LP  (Middle)
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1. Name and Addres  Biotechnolog  (Last)  P.O. BOX 309 U  (Street)  GRAND  CAYMAN  (City)	ess of Reporting Person gy Value Tradir (First) UGLAND HOUSE E9 (State)	(Middle)  KY1-1104  (Zip)
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(City)	(State)	(Zip)						
1. Name and Address BVF INC/IL	of Reporting Person*							
(Last)	(First)	(Middle)						
44 MONTGOMERY STREET								
40TH FL								
(Street) SAN FRANCISCO	CA	94104						
(City)	(State)	(Zip)						
1. Name and Address  LAMPERT M.								
(Last)	(First)	(Middle)						
44 MONTGOME	RY STREET							
40TH FL								
(Street) SAN FRANCISCO	CA	94104						
(City)	(State)	(Zip)						

## **Explanation of Responses:**

- 1. This Form 4 is filed jointly by Biotechnology Value Fund, L.P. ("BVF"), Biotechnology Value Fund II, L.P. ("BVF2"), Biotechnology Value Trading Fund OS LP ("Trading Fund OS"), BVF Partners OS Ltd. ("Partners OS"), BVF I GP LLC ("BVF GP"), BVF II GP LLC ("BVF2 GP"), BVF GP Holdings LLC ("BVF GPH"), BVF Partners L.P. ("Partners"), BVF Inc. and Mark N. Lampert (collectively, the "Reporting Persons"). Each of the Reporting Persons is a member of a Section 13(d) group that collectively owns more than 10% of the Issuer's outstanding shares of Common Stock. Each of the Reporting Persons disclaims beneficial ownership of the securities reported herein except to the extent of his or its pecuniary interest therein.
- 2. Securities owned directly by BVF. As the general partner of BVF, BVF GP may be deemed to beneficially own the securities owned directly by BVF. As the sole member of BVF GP, BVF GPH may be deemed to beneficially own securities owned directly by BVF. As the investment manager of BVF, Partners may be deemed to beneficially own the securities owned directly by BVF. As the investment adviser and general partner of Partners, BVF Inc. may be deemed to beneficially own the securities owned directly by BVF. As a director and officer of BVF Inc., Mr. Lampert may be deemed to beneficially own the securities owned directly by BVF.
- 3. Securities owned directly by BVF2. As the general partner of BVF2 GP, BVF2 GP may be deemed to beneficially own the securities owned directly by BVF2. As the sole member of BVF2 GP, BVF GPH may be deemed to beneficially own securities owned directly by BVF2. As the investment manager of BVF2, Partners may be deemed to beneficially own the securities owned directly by BVF2. As the investment adviser and general partner of Partners, BVF Inc. may be deemed to beneficially own the securities owned directly by BVF2. As a director and officer of BVF Inc., Mr. Lampert may be deemed to beneficially own the securities owned directly by BVF2.
- 4. Securities owned directly by Trading Fund OS. As the general partner of Trading Fund OS, Partners OS may be deemed to beneficially own the securities owned directly by Trading Fund OS. As the investment manager of Trading Fund OS and the sole member of Partners OS, Partners may be deemed to beneficially own the securities owned directly by Trading Fund OS. As the investment adviser and general partner of Partners, BVF Inc. may be deemed to beneficially own the securities owned directly by Trading Fund OS. As a director and officer of BVF Inc., Mr. Lampert may be deemed to beneficially own the securities owned directly by Trading Fund OS.

BVF Partners L.P., By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	11/06/2020
Biotechnology Value Fund, L.P., By: BVF Partners L.P., its investment manager, By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	11/06/2020
BVF I GP LLC, By: BVF GP HOLDINGS LLC, its sole member, By: /s/ Mark N. Lampert, Chief Executive Officer	11/06/2020
Biotechnology Value Fund II, L.P., By: BVF Partners L.P., its investment manager, By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	11/06/2020
BVF II GP LLC, By: BVF GP HOLDINGS LLC, its sole member, By: /s/ Mark N. Lampert, Chief Executive Officer	11/06/2020
BVF Partners OS Ltd., By: BVF Partners L.P., its sole member, By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	11/06/2020
Biotechnology Value Trading Fund OS LP, By; BVF Partners L.P., its investment	11/06/2020

manager, BVF Inc., its general partner, By: /s/ Mark N.
Lampert, President

BVF GP Holdings LLC, By:

/s/ Mark N. Lampert, Chief 11/06/2020

**Executive Officer** 

BVF Inc., By: /s/ Mark N. <u>Lampert, President</u>

11/06/2020

<u>/s/ Mark N. Lampert</u> <u>11/06/2020</u>
\*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- \*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.