SEC Form 4	
FORM 4	

40TH FL

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

OMB APPROVAL

Washington, D.C. 20549

Section 16, Form 4 or Form 5 obligations may continue. See Instruction 1(b). Filed pursuan					nt to Sectic	CHANGES IN BENEFICIAL OWNERSHIP t to Section 16(a) of the Securities Exchange Act of 1934 tion 30(h) of the Investment Company Act of 1940								3235-0287 n 0.5					
transa contra the pu of the the aff	rchase or sale of	e pursuant to a r written plan for of equity securities tended to satisfy e conditions of																	
													5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner						
(Last) 44 MON 40TH FI	NTGOMERY	First) Y ST.	(Middle) 3. Date o 11/08/2				of Earliest Transaction (Month/Day/Year) 2024							_	Officer (give title Vertex of the specify below) See Explanation of Responses				
(Street) SAN FRANCISCO CA 94104 4. If Ame				Line)							Form file	int/Group Filing (Check Applicable ed by One Reporting Person ed by More than One Reporting Person							
(City)	(\$	State)	(Zip)																
		Т	able I - No	n-Der	rivat	tive S	ecuritie	s Ao	quired	Dis	pose	d of, o	r Bene	ficially	Owned				
1. Title of Security (Instr. 3)				2. Trai Date (Mont		ion r/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)		Code		tion Dispose		ities Acquired (A) o d Of (D) (Instr. 3, 4		5. Amount of Securities Beneficially Owned Following Reported Transaction(s)		6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)		7. Nature of Indirect Beneficial Ownership (Instr. 4)
									Code	V	Amou		(A) or (D)	Price	(Instr. 3 an				
<u> </u>		$\frac{1}{10001}$ par value ⁽¹⁾		11/08/2024					J ⁽²⁾	<u> </u>		2,000	D	(2)	830,	,		D ⁽³⁾	
<u> </u>		0001 par value ⁽¹⁾		11/08/2024 11/08/2024					J ⁽²⁾	<u> </u>		8,000 0,000				662,970 87,911		D ⁽⁴⁾	
Common	1 Stock, \$0.0		Table II -				curities	Acc	ľ)isn		·		(2)		11			
							lls, warr		s, optio	ns, c	conve	rtible							
1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Dat if any (Month/Day/Ye	c	Fransa Code (iction Instr.	5. Number Derivative Securities Acquired (or Dispose (D) (Instr. 3 and 5)	A) ad of	6. Date E Expiratio (Month/D	n Date)	Sec Deri	tle and Aı urities Un vative See tr. 3 and 4	derlying curity	8. Price of 9. Nu Derivative deriv Security Secu (Instr. 5) Bene Own Follo Repo		re es ally Ig d	10. Ownershij Form: Direct (D) or Indirect (I) (Instr. 4	Beneficial Ownership (Instr. 4)
				c	Code	v	(A)	(D)	Date Exercisa		Expiratio Date	n Title	Ni	nount or Imber of Iares		Transact (Instr. 4)			
Pre- Funded Warrant	\$0.0001	11/08/2024			J ⁽²⁾		3,062,000		(6)		(6)	Sto \$0.0		062,000	(2)	3,062,	,000	D ⁽³⁾	
Pre- Funded Warrant	\$0.0001	11/08/2024			J ⁽²⁾		2,378,000		(6)		(6)	Sto \$0.0		378,000	(2)	2,378,	,000	D ⁽⁴⁾	
Pre- Funded Warrant	\$0.0001	11/08/2024			J ⁽²⁾		240,000		(6)		(6)	Stc \$0.0		40,000	00 (2)		240,000		
	nd Address of	Reporting Person [*]										_			*				
(Last) (First) (Middle) 44 MONTGOMERY ST. 40TH FLOOR																			
(Street) SAN FR	ANCISCO	СА	94104	1															
(City)		(State)	(Zip)																
1. Name and Address of Reporting Person [*] BIOTECHNOLOGY VALUE FUND L P																			
(Last) 44 MON	JTGOMERY	(First) Y STREET	(Middle	9)															

(Street)		
SAN FRANCISCO	СА	94104
(City)	(State)	(Zip)
1. Name and Address of BVF I GP LLC	Reporting Person*	
(Last) 44 MONTGOMERY	(First) Y ST., 40TH FLOOR	(Middle)
(Street) SAN FRANCISCO	СА	94104
(City)	(State)	(Zip)
1. Name and Address of BIOTECHNOLO	Reporting Person [*] DGY VALUE FU	ND II LP
(Last) 44 MONTGOMERY 40TH FL	(First) 7 STREET	(Middle)
(Street) SAN FRANCISCO	СА	94104
(City)	(State)	(Zip)
1. Name and Address of BVF II GP LLC	Reporting Person*	
(Last) 44 MONTGOMERY	(First) Y ST., 40TH FLOOR	(Middle)
(Street) SAN FRANCISCO	СА	94104
(City)	(State)	(Zip)
1. Name and Address of Biotechnology V	Reporting Person [*] Value Trading Fun	d OS LP
(Last) P.O. BOX 309 UGL	(First) AND HOUSE	(Middle)
(Street) GRAND CAYMAN	Е9	KY1-1104
(City)	(State)	(Zip)
1. Name and Address of BVF Partners OS		
(Last) P.O. BOX 309 UGLA	(First) AND HOUSE	(Middle)
(Street) GRAND CAYMAN	E9	KY1-1104
(City)	(State)	(Zip)
1. Name and Address of BVF GP HOLDI		
(Last) 44 MONTGOMERY	(First) Y ST., 40TH FLOOR	(Middle)
(Street) SAN FRANCISCO	СА	94104
(City)	(State)	(Zip)
1. Name and Address of BVF INC/IL	Reporting Person [*]	

(Last)	(First)	(Middle)					
44 MONTGOMERY	STREET						
40TH FL							
(Street)							
SAN FRANCISCO	CA	94104					
(City)	(State)	(Zip)					
1. Name and Address of Reporting Person [®] <u>LAMPERT MARK N</u>							
(Last)	(First)	(Middle)					
1 SANSOME ST							
30TH 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 ("BVF2 GP"), BVF IGP Holdings 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 group for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the "Exchange Act") that previously collectively beneficially owned over 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. On November 8, 2024, certain of the Reporting Persons entered into an Exchange Agreement with the Issuer (the "Exchange Agreement"), pursuant to which such Reporting Persons agreed to exchange an aggregate 2. On Forement (1), 502-7, certain of the Reporting reisons therea from an Exchange Agreement (1), pursuant to wind such Reporting reisons agreed to exchange an aggregate of 5,775,000 shares of common stock of the Issuer for a total of 5,775,000 Pre-Funded Warrants (1), Pursuant to the Exchange Agreement, BVF exchanged 3,062,000 shares for 3,062,000 Pre-Funded Warrants, BVF2 exchanged 2,378,000 shares for 2,378,000 Pre-Funded Warrants and Trading Fund OS exchanged 240,000 shares for 240,000 Pre-Funded Warrants.

3. 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, BVF GP may be deemed to beneficially own the 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 BVF Inc. may be deemed to beneficially own the securities owned directly by BVF. As the investment adviser and general partner of BVF Inc. may be deemed to beneficially own the securities owned directly by BVF. As the investment adviser and general partner of BVF Inc. may be deemed to beneficially own the securities owned directly by BVF. As the investment adviser and general 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.

4. Securities owned directly by BVF2. As the general partner of BVF2, 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 the securities owned directly by BVF2. As the investment anager 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., Mr. Lampert may be deemed to beneficially own the securities owned directly by BVF2.

5. 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 adviser and general partners, BVF Inc., may be deemed to beneficially own the securities owned directly by Trading Fund OS. As the investment adviser and general partners of Partners, BVF Inc., Mr. Lampert may be deemed to beneficially own the securities owned directly by Trading Fund OS. As the investment adviser and general partners owned directly by Trading Fund OS. As the investment adviser and general partners of Partners, BVF Inc., Mr. Lampert 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. directly by Trading Fund OS.

6. Each Pre-Funded Warrant may be exercised for one share of common stock. The Pre-Funded Warrants are exercisable at any time and do not expire. A holder of Pre-Funded Warrants may not exercise such Pre-Funded Warrants if, after giving effect or immediately prior to to such exercise, such holder, its Attribution Parties (as defined in the Warrant To Purchase Shares of Common Stock) and any other persons whose beneficial ownership of shares of common stock would be aggregated with such holder's for purposes of Section 13(d) of the Exchange Act, would beneficially own (i) in excess of 9.99% of the total number of issued and outstanding shares of common stock, or (ii) securities representing voting power in excess of 9.99% of the combined voting power of all of the securities of the Issuer then outstanding, in each case, following such exercise

BVF Partners L.P., By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	<u>11/13/2024</u>
Biotechnology Value Fund, L.P., By: BVF I GP LLC, its general partner, By: /s/ Mark N. Lampert, Chief Executive Officer	<u>11/13/2024</u>
BVF I GP LLC, By: /s/ Mark N. Lampert, Chief Executive Officer	<u>11/13/2024</u>
Biotechnology Value Fund II, L.P., By: BVF II GP LLC, its general partner, By: /s/ Mark N. Lampert, Chief Executive Officer	<u>11/13/2024</u>
BVF II GP LLC, By: /s/ Mark N. Lampert, Chief Executive Officer	<u>11/13/2024</u>
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, President	<u>11/13/2024</u>
BVF Partners OS Ltd., By: BVF Partners L.P., its sole member, By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President	<u>11/13/2024</u>
BVF GP Holdings LLC, By: /s/ Mark N. Lampert, Chief Executive Officer	<u>11/13/2024</u>
BVF Inc., By: /s/ Mark N. Lampert, President	<u>11/13/2024</u>
<u>/s/ Mark N. Lampert</u> ** Signature of Reporting Person	<u>11/13/2024</u> Date

 * 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.