

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

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

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>BVF PARTNERS L P/L</u> <hr/> (Last) (First) (Middle) 1 SANSOME ST 30TH FL <hr/> (Street) SAN FRANCISCO CA 94104 <hr/> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>INFINITY PHARMACEUTICALS, INC. [ INFI ]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) 04/09/2018	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock, \$0.001 par value <sup>(1)</sup>	04/09/2018		P		228,691	A	\$1.9	4,738,476	D <sup>(2)</sup>	
Common Stock, \$0.001 par value <sup>(1)</sup>	04/09/2018		P		208,872	A	\$1.9	3,177,359	D <sup>(3)</sup>	
Common Stock, \$0.001 par value <sup>(1)</sup>	04/09/2018		P		62,437	A	\$1.9	853,020	D <sup>(4)</sup>	
Common Stock, \$0.001 par value <sup>(1)</sup>	04/10/2018		P		546,865	A	\$2	5,285,341	D <sup>(2)</sup>	
Common Stock, \$0.001 par value <sup>(1)</sup>	04/10/2018		P		365,682	A	\$2	3,543,041	D <sup>(3)</sup>	
Common Stock, \$0.001 par value <sup>(1)</sup>	04/10/2018		P		97,453	A	\$2	950,473	D <sup>(4)</sup>	

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V		Date Exercisable	Expiration Date					

1. Name and Address of Reporting Person* <u>BVF PARTNERS L P/L</u> <hr/> (Last) (First) (Middle) 1 SANSOME ST 30TH FL <hr/> (Street) SAN FRANCISCO CA 94104 <hr/> (City) (State) (Zip)		
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1. Name and Address of Reporting Person\*

BIOTECHNOLOGY VALUE FUND L P

(Last) (First) (Middle)

1 SANSOME ST  
30TH FL

(Street)

SAN FRANCISCO CA 94104

(City) (State) (Zip)

1. Name and Address of Reporting Person\*

BIOTECHNOLOGY VALUE FUND II LP

(Last) (First) (Middle)

1 SANSOME ST  
30TH FL

(Street)

SAN FRANCISCO CA 94104

(City) (State) (Zip)

1. Name and Address of Reporting Person\*

Biotechnology Value Trading Fund OS LP

(Last) (First) (Middle)

P.O. BOX 309 UGLAND HOUSE

(Street)

GRAND E9 KY1-1104  
CAYMAN

(City) (State) (Zip)

1. Name and Address of Reporting Person\*

BVF Partners OS Ltd.

(Last) (First) (Middle)

P.O. BOX 309 UGLAND HOUSE

(Street)

GRAND E9 KY1-1104  
CAYMAN

(City) (State) (Zip)

1. Name and Address of Reporting Person\*

BVF INC/IL

(Last) (First) (Middle)

1 SANSOME ST  
30TH 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)		
(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 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, 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, 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/ 04/11/2018  
Mark N. Lampert, President  
Biotechnology Value Fund, L.P., By: BVF Partners L.P., its general partner, By: BVF Inc., 04/11/2018  
its general partner, By: /s/ Mark N. Lampert, President  
Biotechnology Value Fund II, L.P., By: BVF Partners L.P., its general partner, By: BVF Inc., 04/11/2018  
its general partner, By: /s/ Mark N. Lampert, President  
BVF Partners OS Ltd., By: BVF Partners L.P., its sole member, By: BVF Inc., its general partner, By: /s/ Mark N. Lampert, President 04/11/2018  
Biotechnology Value Trading Fund OS LP, By: BVF Partners L.P., its investment manager, BVF Inc., its general partner, By: /s/ Mark N. Lampert, President 04/11/2018  
BVF Inc., By: /s/ Mark N. Lampert, President 04/11/2018  
/s/ Mark N. Lampert 04/11/2018  
 \*\* Signature of Reporting Person Date

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

\* 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.