

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. )<sup>1</sup>

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ContraFect Corporation  
(Name of Issuer)

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Common Stock, \$0.0001 par value  
(Title of Class of Securities)

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212326102  
(CUSIP Number)

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July 20, 2017  
(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)

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<sup>1</sup> 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*).

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1	NAME OF REPORTING PERSON  Biotechnology Value Fund, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0 shares
	6	SHARED VOTING POWER  2,443,720 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  2,443,720 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,443,720 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  3.2% (1)	
12	TYPE OF REPORTING PERSON  PN	

(1) Includes 814,573 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON  Biotechnology Value Fund II, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER
	6	SHARED VOTING POWER  1,574,254 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  1,574,254 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,574,254 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  2.1% (1)	
12	TYPE OF REPORTING PERSON  PN	

(1) Includes 524,751 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON  Biotechnology Value Trading Fund OS LP	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0 shares
	6	SHARED VOTING POWER  437,841 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  437,841 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  437,841 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  Less than 1% (1)	
12	TYPE OF REPORTING PERSON  PN	

(1) Includes 145,947 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON BVF Partners OS Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0 shares
	6	SHARED VOTING POWER 437,841 (1)
	7	SOLE DISPOSITIVE POWER 0 shares
	8	SHARED DISPOSITIVE POWER 437,841 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 437,841 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) Less than 1% (1)	
12	TYPE OF REPORTING PERSON CO	

(1) Includes 145,947 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON BVF Partners L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0 shares
	6	SHARED VOTING POWER 5,250,000 (1)
	7	SOLE DISPOSITIVE POWER 0 shares
	8	SHARED DISPOSITIVE POWER 5,250,000 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,250,000 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.0% (1)	
12	TYPE OF REPORTING PERSON PN, IA	

(1) Includes 1,750,000 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON  BVF Inc.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0 shares
	6	SHARED VOTING POWER  5,250,000 (1)
	7	SOLE DISPOSITIVE POWER  0 shares
	8	SHARED DISPOSITIVE POWER  5,250,000 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  5,250,000 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)  7.0% (1)	
12	TYPE OF REPORTING PERSON  CO	

(1) Includes 1,750,000 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).

1	NAME OF REPORTING PERSON Mark N. Lampert	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER 0 shares
	6	SHARED VOTING POWER 5,250,000 (1)
	7	SOLE DISPOSITIVE POWER 0 shares
	8	SHARED DISPOSITIVE POWER 5,250,000 (1)
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,250,000 (1)	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 7.0% (1)	
12	TYPE OF REPORTING PERSON IN	

(1) Includes 1,750,000 shares of Common Stock issuable upon the exercise of certain Warrants (defined in Item 4).



Item 1(a). Name of Issuer:  
ContraFect Corporation, a Delaware corporation (the “Issuer”).

Item 1(b). Address of Issuer’s Principal Executive Offices:  
28 Wells Avenue, 3rd Floor  
Yonkers, New York 10701

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”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Biotechnology Value Fund II, L.P. (“BVF2”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Biotechnology Value Trading Fund OS LP (“Trading Fund OS”)  
PO Box 309 Uglan House  
Grand Cayman, KY1-1104  
Cayman Islands  
Citizenship: Cayman Islands

BVF Partners OS Ltd. (“Partners OS”)  
PO Box 309 Uglan House  
Grand Cayman, KY1-1104  
Cayman Islands  
Citizenship: Cayman Islands

BVF Partners L.P. (“Partners”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

BVF Inc.  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: Delaware

Mark N. Lampert (“Mr. Lampert”)  
1 Sansome Street, 30<sup>th</sup> Floor  
San Francisco, California 94104  
Citizenship: United States

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

Item 2(d). Title of Class of Securities:

Common Stock, par value \$0.0001 per share (the "Common Stock")

Item 2(e). CUSIP Number:

212326102

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(c)(J), please specify the type of institution: \_\_\_\_\_

Item 4. Ownership

(a) Amount beneficially owned:

The Reporting Persons hold 3,500,000 warrants, exercisable for an aggregate of 1,750,000 shares of Common Stock (the "Warrants"). Each Warrant is exercisable for ½ share of Common Stock. The Warrants are only exercisable to the extent that the holder, together with its affiliates and any other person or entity acting as a group, would not beneficially own more than 9.99% of the outstanding Common Stock after giving effect to such exercise, as such percentage ownership is determined in accordance with the terms of the Warrant (the "Beneficial Ownership Limitation"), except that upon at least 61 days prior notice from the holder to the Issuer, the holder may waive the Beneficial Ownership Limitation. The Beneficial Ownership Limitation does not limit the Reporting Persons at this time, as none of the Reporting Persons may be deemed to beneficially own more than 9.99% after giving effect to the exercise of the Warrants.

The beneficial ownership for each of the Reporting Persons includes the shares of Common Stock issuable upon exercise of the Warrants held by such Reporting Person and is rounded down to the nearest full share of Common Stock.

As of the close of business on July 20, 2017 (i) BVF beneficially owned 2,443,720 shares of Common Stock, including 814,573 shares of Common Stock issuable upon the exercise of certain Warrants, (ii) BVF2 beneficially owned 1,574,254 shares of Common Stock, including 524,751 shares of Common Stock issuable upon the exercise of certain Warrants, and (iii) Trading Fund OS beneficially owned 437,841 shares of Common Stock, including 145,947 shares of Common Stock issuable upon the exercise of certain Warrants.

Partners OS, as the general partner of Trading Fund, OS may be deemed to beneficially own the 437,841 shares of Common Stock beneficially owned by Trading Fund OS, including 145,947 shares of Common Stock issuable upon the exercise of certain Warrants.

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 5,250,000 shares of Common Stock beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and certain Partners managed accounts (the "Partners Managed Accounts"), including 794,184 shares of Common Stock held in the Partners Managed Accounts (which includes 264,728 shares of Common Stock issuable upon the exercise of certain Warrants).

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 5,250,000 shares of Common Stock beneficially owned by Partners.

Mr. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 5,250,000 shares of Common Stock 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 Common Stock owned by another Reporting Person. Partners OS disclaims beneficial ownership of the Common Stock beneficially owned by Trading Fund OS. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the Common Stock beneficially owned by BVF, BVF2, Trading Fund OS, and the Partners Managed Accounts, 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 a denominator that is the sum of: (a) 73,656,606 shares of Common Stock outstanding as disclosed in the Issuer's Prospectus filed with the Securities and Exchange Commission on July 21, 2017 and (b) 1,750,000 shares of Common Stock issuable upon the exercise of certain Warrants.

As of the close of business on July 20, 2017 (i) BVF beneficially owned approximately 3.2% of the outstanding Common Stock, including shares of Common Stock issuable upon the exercise of certain Warrants (ii) BVF2 beneficially owned approximately 2.1% of the outstanding Common Stock, including shares of Common Stock issuable upon the exercise of certain Warrants (iii) Trading Fund OS beneficially owned less than 1% of the outstanding Common Stock including shares of Common Stock issuable upon the exercise of certain Warrants (iv) Partners OS may be deemed to beneficially own less than 1% of the outstanding Common Stock, and (v) each of Partners, BVF Inc. and Mr. Lampert may be deemed to beneficially own approximately 7.0% of the outstanding Common Stock (approximately 1.1% of which is held in the Partners Managed Accounts, including shares of Common Stock issuable upon the exercise of certain Warrants).

- (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.  
Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the shares of Common Stock beneficially owned by BVF, BVF2, Trading Fund OS, and the Partners Managed Accounts.

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.

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.

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: July 28, 2017

BIOTECHNOLOGY VALUE FUND, L.P.

BVF INC.

By: BVF Partners L.P., its general partner  
By: BVF Inc., its general partner

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

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

/s/ Mark N. Lampert  
MARK N. LAMPERT

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners L.P., its general partner  
By: BVF Inc., its general partner

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

BVF PARTNERS L.P.

By: BVF Inc., its general partner

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

**Joint Filing Agreement**

The undersigned hereby agree that the Statement on Schedule 13G dated July 28, 2017 with respect to the shares of Common Stock of ContraFect Corporation, and any further amendments thereto executed by each and any of the undersigned shall be filed on behalf of each of the undersigned pursuant to and in accordance with the provisions of Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended.

Dated: July 28, 2017

BIOTECHNOLOGY VALUE FUND, L.P.

BVF INC.

By: BVF Partners L.P., its general partner  
By: BVF Inc., its general partner

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

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

/s/ Mark N. Lampert  
MARK N. LAMPERT

BIOTECHNOLOGY VALUE FUND II, L.P.

By: BVF Partners L.P., its general partner  
By: BVF Inc., its general partner

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

BVF PARTNERS L.P.

By: BVF Inc., its general partner

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