REPLIGEN CORP Form SC 13G/A May 20, 2009

SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G/A (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 13d-2(b)

(Amendment No. 5)* Repligen Corporation

(Name of Issuer)

Common Stock

(Title of Class of Securities)

759916109

(CUSIP Number)

May 15, 2009

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- x Rule 13d-1(c)
- o 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 the 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 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*).

| No | CUSIP .759916109 | 13G |] | Page 2 of 12 Pages | |
|-----|---|--|------------------------------------|--------------------|--|
| 1 | NAME OF REPORTING PERSON: Biotechnology Value Fund, L.P. I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY): | | | | |
| 2 | CHECK THE APPROPRIATE B | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) x (b) o | | | |
| 3 | SEC USE ONLY | | | | |
| 4 | CITIZENSHIP OR PLACE OF C Delaware | RGANIZATION | | | |
| | JMBER OF SHARES | 5 | SOLE VOTING POWER 0 | | |
| BEN | JEFICIALLY OWNED BY | 6 | SHARED VOTING POWER 825,750 | | |
| | EACH EPORTING PERSON | 7 | SOLE DISPOSITIVE POWER 0 | ₹ | |
| | WITH: | 8 | SHARED DISPOSITIVE POV 825,750 | WER | |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 825,750 | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) o EXCLUDES CERTAIN SHARES* | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 2.69% | | | | |
| 12 | TYPE OF REPORTING PERSON* PN | | | | |

| | USIP No. 59916109 | 13G | | Page 3 of 12 Pages | |
|-----|--|--------------|------------------------------------|--------------------|--|
| 1 | NAME OF REPORTING PERSON: Biotechnology Value Fund II, L.P. I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY): | | | | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) x (b) o | | | | |
| 3 | SEC USE ONLY | | | | |
| 4 | CITIZENSHIP OR PLACE OF C Delaware | DRGANIZATION | | | |
| | UMBER OF SHARES | 5 | SOLE VOTING POWER 0 | | |
| BEN | TEFICIALLY OWNED BY | 6 | SHARED VOTING POWER 534,400 | | |
| | EACH EPORTING PERSON | 7 | SOLE DISPOSITIVE POWE 0 | R | |
| | WITH: | 8 | SHARED DISPOSITIVE PO 534,400 | WER | |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 534,400 | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) o EXCLUDES CERTAIN SHARES* | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 1.74% | | | | |
| 12 | TYPE OF REPORTING PERSON* PN | | | | |

| | USIP No. 59916109 | | 13G | Page 4 of 12 Pages |
|----|--|-------|---|--------------------|
| | NAME OF REPOR' BVF Investments, l I.R.S. IDENTIFICA | L.L.C | | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) x (b) o | | | |
| 3 | SEC USE ONLY | | | |
| | CITIZENSHIP OR 1 Delaware | PLAC | E OF ORGANIZATION | |
| | JMBER OF SHARES | 5 | SOLE VOTING POWER 0 | |
| | IEFICIALLY OWNED BY | 6 | SHARED VOTING POWER 1,856,700 | |
| | | 7 | SOLE DISPOSITIVE POWER 0 | |
| - | WITH: | 8 | SHARED DISPOSITIVE POWER 1,856,700 | |
| 9 | AGGREGATE A 1,856,700 | MOU | NT BENEFICIALLY OWNED BY EACH REPORTING PE | ERSON |
| 10 | CHECK IF THE | AGGl | REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN S | HARES* o |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.05% | | | |
| 12 | TYPE OF REPOR | RTIN | G PERSON* | |

13G

CUSIP No. 759916109

Page 5 of 12 Pages

| | NAME OF REPORTING Investment 10, L.L.C. I.R.S. IDENTIFICATION | | PERSONS (ENTITIES ONLY): | | |
|----|---|--------------------|---|----------------|--|
| 2 | CHECK THE APPROP | RIATE BOX IF A MEI | MBER OF A GROUP* | (a) x (b) o | |
| 3 | SEC USE ONLY | | | | |
| | CITIZENSHIP OR PLA Illinois | CE OF ORGANIZATI | ION | | |
| | | 5 | SOLE VOTING POWER | | |
| | MBER OF | | 0 | | |
| | SHARES | | CHARED WOTING DOWER | | |
| | EFICIALLY DWNED | 6 | SHARED VOTING POWER 200,100 | | |
| • | BY | | 200,100 | | |
| | EACH | 7 | SOLE DISPOSITIVE POWER | | |
| RE | PORTING | | 0 | | |
| | PERSON | | | | |
| | WITH: | 8 | SHARED DISPOSITIVE POWER 200,100 | | |
| 9 | AGGREGATE AMO | UNT BENEFICIALLY | Y OWNED BY EACH | | |
| | REPORTING PERSO | | | | |
| | 200,100 | | | | |
| 10 | | GREGATE AMOUNT | IN ROW (9) | О | |
| | EXCLUDES CERTA | AIN SHAKES* | | | |
| | | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) .65% | | | | |
| 12 | TYPE OF REPORTION | NG PERSON* | | | |
| | | | | | |

Page 6 of 12 Pages

13G

CUSIP No. 759916109

| 1 | NAME OF REPORTII | NG PERSON: | | | |
|----|---|--------------------------|--------------------------------------|---|----------------|
| | BVF Partners L.P. I.R.S. IDENTIFICATI | ON NOS. OF ABOVE P | ERSONS (ENTITIES ONLY): | | |
| 2 | CHECK THE APPRO | PRIATE BOX IF A ME | MBER OF A GROUP* | | (a) x (b) o |
| 3 | SEC USE ONLY | | | | |
| 4 | CITIZENSHIP OR PL Delaware | ACE OF ORGANIZATI | ON | | |
| | JMBER OF SHARES | 5 | SOLE VOTING POWER 0 | | |
| | EFICIALLY OWNED BY | 6 | SHARED VOTING POWER 3,416,950 | | |
| | EACH EPORTING PERSON | 7 | SOLE DISPOSITIVE POWER 0 | | |
| | WITH: | 8 | SHARED DISPOSITIVE POWER 3,416,950 | R | |
| 9 | AGGREGATE AM REPORTING PERS 3,416,950 | OUNT BENEFICIALLY SON | OWNED BY EACH | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.13% | | | | |
| 12 | TYPE OF REPORT PN, HC | ING PERSON* | | | |

| | CUSIP No. 759916109 | 130 | | Page 7 of 12 Pages | | |
|-------------------------|---------------------------------|---|----------------------------------|--------------------|--|--|
| 1 | BVF Inc. S.S. OR I.R.S. IDEN | NAME OF REPORTING PERSON: BVF Inc. S.S. OR I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY): | | | | |
| 2 | CHECK THE APPR | OPRIATE BOX IF A MEME | BER OF A GROUP* | (a) x (b) o | | |
| 3 | SEC USE ONLY | | | | | |
| 4 | CITIZENSHIP OR F Delaware | PLACE OF ORGANIZATION | N | | | |
| | | | | | | |
| N | NUMBER OF SHARES | 5 | SOLE VOTING POWER 0 | | | |
| BENEFICIALLY OWNED | | 6 | SHARED VOTING POWER 3,416,950 | | | |
| BY EACH REPORTING | | 7 | SOLE DISPOSITIVE POWER 0 | | | |
| | PERSON WITH: | 8 | SHARED DISPOSITIVE POW 3,416,950 | VER | | |
| 9 | | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 3,416,950 | | | | |
| 10 | | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | |
| 11 | PERCENT OF 0 11.13% | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 11.13% | | | | |
| 12 | TYPE OF REPO | ORTING PERSON* | | | | |

13G

CUSIP No.

| | 759916109 | 13G | | Page 8 01 12 Pages | |
|----|--|--|--------------------------------------|--------------------|--|
| 1 | NAME OF REPORT Mark N. Lampert S.S. OR I.R.S. IDEN | | VE PERSONS (ENTITIES ONLY): | | |
| 2 | CHECK THE APPRO | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* | | | |
| 3 | SEC USE ONLY | | | | |
| 4 | CITIZENSHIP OR Pl United States | LACE OF ORGANIZATION | | | |
| N | IUMBER OF SHARES | 5 | SOLE VOTING POWER 0 | | |
| BE | ENEFICIALLY OWNED BY | 6 | SHARED VOTING POWER 3,416,950 | | |
| R | EACH REPORTING PERSON | 7 | SOLE DISPOSITIVE POWER 0 | R | |
| | WITH: | 8 | SHARED DISPOSITIVE POV 3,416,950 | WER | |
| 9 | AGGREGATE A REPORTING PE 3,416,950 | AMOUNT BENEFICIALLY (ERSON | OWNED BY EACH | | |
| 10 | | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | |
| 11 | PERCENT OF C 11.13% | LASS REPRESENTED BY A | AMOUNT IN ROW (9) | | |
| 12 | TYPE OF REPO | RTING PERSON* | | | |

Page 8 of 12 Pages

CUSIP No. 759916109 13G Page 9 of 12 Pages

ITEM 1(a). NAME OF ISSUER:

Repligen Corporation ("Repligen")

ITEM 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES:

41 Seyon Street, Bldg 1, Suite 100 Waltham, MA 02453 United States

ITEM 2(a). NAME OF PERSON FILING:

This Amendment No. 5 to Schedule 13G is being filed on behalf of the following persons (the "Reporting Persons"):

- (i) Biotechnology Value Fund, L.P. ("BVF")
- (ii) Biotechnology Value Fund II, L.P. ("BVF2")
- (iii) BVF Investments, L.L.C. ("BVFLLC")
- (iv) Investment 10, L.L.C. ("ILL10")
- (v) BVF Partners L.P. ("Partners")
- (vi) BVF Inc. ("BVF Inc.")
- (vii) Mark N. Lampert ("Mr. Lampert")

ITEM 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE:

The principal business office of the Reporting Persons comprising the group filing this Amendment No. 5 to Schedule 13G is located at 900 North Michigan Avenue, Suite 1100, Chicago, Illinois, 60611.

ITEM 2(c). CITIZENSHIP:

BVF: a Delaware limited partnership
BVF2: a Delaware limited partnership
BVFLLC: a Delaware limited liability company
ILL10: an Illinois limited liability company
Partners: a Delaware limited partnership
BVF Inc.: a Delaware corporation

Mark N. Lampert United States

ITEM 2(d). TITLE OF CLASS OF SECURITIES:

This Amendment No. 5 to Schedule 13G is being filed with respect to the common stock, par value \$0.01 per share ("Common Stock"), of Repligen. The Reporting Persons' percentage ownership of Common Stock is based on 30,691,707 shares of Common Stock being outstanding.

CUSIP No. 759916109 13G Page 10 of 12 Pages

As of May 15, 2009, BVF beneficially owned 825,750 shares of Common Stock, BVF2 beneficially owned 534,400 shares of Common Stock, BVFLLC beneficially owned 1,856,700 shares of Common Stock and ILL10 beneficially owned 200,100 shares of Common Stock. Beneficial ownership by Partners, BVF Inc., and Mr. Lampert includes 3,416,950 shares of Common Stock.

ITEM 2(e). CUSIP Number:

759916109

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: One of the following

Not applicable as this Amendment No. 5 to Schedule 13G is filed pursuant to Rule 13d-1(c).

ITEM 4. OWNERSHIP:

The information in items 1 and 5 through 11 on the cover pages (pp. 2 - 8) on this Amendment No. 5 to Schedule 13G is hereby incorporated by reference.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS:

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owner of more than five percent of the class of securities check the following.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON:

Pursuant to the operating agreement of BVFLLC, Partners is authorized, among other things, to invest the contributed capital of Samana Capital, L.P., the majority member of BVFLLC, in the shares of Common Stock and other securities and to vote, exercise or convert and dispose of such securities and is entitled to receive fees based on assets under management and, subject to certain exceptions, allocations based on realized and unrealized gains on such assets. Partners and BVF Inc. share voting and dispositive power over shares of the Common Stock beneficially owned by BVF, BVF2, BVFLLC and those owned by ILL10, on whose behalf Partners acts as an investment manager and, accordingly, Partners and BVF Inc. have beneficial ownership of all of the shares of the Common Stock owned by such parties.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY:

CUSIP No. 759916109 13G Page 11 of 12 Pages

Mr. Lampert is the owner, sole director and an officer of BVF Inc. BVF Inc. is the general partner of Partners, which is the general partner of BVF and BVF2. Partners is the manager of BVFLLC and is investment adviser to ILL10.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF A GROUP:

The members of the group making this filing on Amendment No. 5 to Schedule 13G are: Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., BVF Investments, L.L.C., Investment 10, L.L.C., BVF Partners L.P., BVF Inc. and Mr. Lampert.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP:

Not applicable.

CUSIP No. 759916109 13G Page 12 of 12 Pages

ITEM 10. CERTIFICATION

By signing below I certify that, to the best of my 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.

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: May 20, 2009

BIOTECHNOLOGY VALUE FUND, 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

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 INVESTMENTS, L.L.C.

By: BVF Partners L.P., its manager

By: BVF Inc., its general partner

By: /s/ Mark N. Lampert

Mark N. Lampert

President

INVESTMENT 10, L.L.C

By: BVF Partners L.P., its attorney-in-fact

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 INC.

By: /s/ Mark N. Lampert

Mark N. Lampert

President

MARK N. LAMPERT

By: /s/ Mark N. Lampert

Exhibit A JOINT FILING AGREEMENT

The undersigned agree that this Amendment No. 5 to Schedule 13G, dated May 20, 2009, relating to the Common Stock of Repligen Corporation shall be filed on behalf of the undersigned.

Dated: May 20, 2009

BIOTECHNOLOGY VALUE FUND, 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 BIOTECHNOLOGY VALUE FUND II, L.P. By: BVF Partners, L.P., its general partner By: BVF Inc., its general partner By: /s/ Mark N. Lambert Mark N. Lampert, President **BVF INVESTMENTS, L.L.C.** By: BVF Partners, L.P., its manager By: BVF Inc., its general partner By: /s/ Mark N. Lampert Mark N. Lampert, President **INVESTMENT 10, L.L.C.**

By: BVF Partners, L.P., its investment manager

| 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 INC. | |
| By: /s/ Mark N. Lampert | |
| Mark N. Lampert, President | |
| MARK N. LAMPERT | |
| By: /s/ Mark N. Lampert | |
| Mark N. Lampert | |